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(E), Editorial; (M), Miscellaneous; (N), News; (O), Original Articles; (MR), Medicinal Remedies; (SN), Society News:

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

The American Medical Association Is Next on the List.—This number of the JOURNAL will reach our members after our Annual Session has been concluded. The next important medical event, and with the exception of our own meeting the most important of all occurrences of the sort, will be the annual session of the American Medical Association, which will be held this year in Atlantic City (New Jersey, if anybody does not happen to know), May 25-29. Those who can afford the trip (and, no doubt, some who cannot), will not miss the opportunity to attend this meeting. Such an opportunity to combine business and pleasure is not offered every day. Perhaps in no other aggregation in the world will so many notable physicians be found. The opportunity to meet those who are leading in the splendid progress in medicine is worth the cost of the trip. The diverting influences and the pleasure of travel, and the opportunity to learn first hand of the important phases of the rapid advancement of the art and science of medicine, are additional advantages.

Atlantic City is, truly, the playground of America. It is said that more than ten million people are entertained there annually. The celebrated beach, surf and boardwalk, are second only to the beach, surf and boulevard of our own Galveston (we must be honest about it—even at that, there is ample room for praise). The climate of New Jersey during the latter part of May is ideal. The sea breezes come from over the Gulf Stream, and the land breezes pass over such forests of pine as are to be found in Texas. Between the serious moments of the meeting there will be every opportunity for play, which latter is one thing the doctors need almost as bad as they need knowledge of medicine. It is said the golf courses in and about Atlantic City appeal especially to golf bugs. There is one course which comprises 27 holes—whatever that means. We are not certain whether golf courses, like Swiss cheese, may be judged by the number of holes. There will be some sort of competition in this ancient and honorable game. We are informed further, that those who like to swim need not go into the Atlantic (the water of which is not as warm as that of the Gulf of Mexico). There are numerous indoor swimming pools, filled with filtered ocean water. A special effort will be made to see that visiting ladies are properly entertained. There will be receptions, bus rides, rolling-chair rides on the boardwalk, and numerous recitals. We believe members will be entitled to participate in some of these. It will not be possible to refer in detail to particular features of the meeting.

The usual dinners and gatherings of alumni associations and fraternities will be held during the meeting. Special announcement has been made of an informal dinner for the alumni of Johns Hopkins University, for a luncheon of the Boston Floating Hospital Alumni Association, and for a dinner for the Medical Officers of the World War.

The scientific program is of the usual high and indescribable order. Diagnostic clinics, similar to those held last year, will be conducted during Tuesday of the meeting, in the Music Hall on the steel pier. Among the distinguished guests have already been noted the following: J. Basil Hall, Bradford, England, President of the British Medical Asso-

ciation; T. Clarence Routley, Toronto, Canada, General Secretary of the Canadian Medical Association; A. E. Barclay, Manchester, England; Edward Archibald, Montreal; C. D. Parfitt, Gravenhurst, Ontario, and Fulton Risdon, Toronto, Canada.

The scientific exhibits will be located in the Ball Room, on the steel pier, and will doubtless be most attractive and instructive.

The Transportation Committee of the State Medical Association, has adopted an official route to this meeting, and earnestly urges that those who expect to attend consider making the trip in a body. It is rather difficult to understand why Texas doctors do not like to travel in a body. We judge this to be true because of our poor success heretofore in making up parties for the A. M. A. meetings. It would seem that on an extended trip such as this, at least, the comradeship always engendered under similar circumstances would be worth while. Perhaps doctors feel that at least the going trip should be given over to undisturbed rest, in order to get away from the annoying demands of practice. It is a mistake to assume that association with our fellow physicians will add to our troubles in this regard. Indeed, the contrary is true. It is with the greatest difficulty, in our experience, that doctors can be induced to discuss medicine on such occasions. Quite the most entertaining jokes (not going into greater detail) that we have heard have come to us on similar occasions. And it seems that the bigger reputation the doctor has the more funny stories he can tell. There will be not less than one hundred, and perhaps as many as two hundred Texas doctors, who will visit Atlantic City on this occasion. It is hoped that a party may be organized to make the trip over the official route.

The M., K. & T. from Texas to St. Louis, has been chosen as the first part of the route, and Pullmans will be started from Houston and San Antonio, with concentration at Dallas and Fort Worth. From St. Louis, the route is *via* the B. & O. to Philadelphia. This road was chosen for this part of the journey not only because it is the most beautiful scenic route available, but because it passes through Washington and Baltimore, two points of special interest to the profession. It is planned to leave Fort Worth and Dallas, at 4:55 p. m., Friday, May 22; leaving St. Louis at noon, Saturday, May 23, and arriving in Philadelphia at 3:57 p. m., Sunday, May 24; leaving Philadelphia immediately and arriving in Atlantic City at 6:30 p. m. (which will be 5:30 p. m. by the daylight saving plan, which will be in force at the time). This schedule will allow of concentration at the various focal points in Texas Friday, and will permit of perfection of hotel arrangements upon arrival in Atlantic City, before night, and without interfering in any particular with the program of the meeting. If as many as fifteen are secured, a Pullman will go through to Philadelphia, which will be a distinct advantage. If there are as many as twenty-five, a Pullman will go through to Atlantic City, which will be a still greater advantage. This factor may be multiplied as many times as may be necessary to care for the crowd. If the required number is not secured, it will be necessary to change cars at St. Louis and Philadelphia, and arrange for sleeping car accommodations by wire, at the time of purchase of tickets. Those who are interested should at once communicate with Mr. J. G. Smith, Division Passenger Agent, M., K. & T., Fort Worth, or the State Secretary, 207½ West 11th St., Fort Worth.

Tickets will be sold on the usual one and one-half fare for the round trip rate, but it will be necessary to pay full fare for the going trip, *taking receipt from the ticket agent*, on the regular form, showing that the ticket was purchased, over what route and for what purpose. This certificate, after having been signed by the Secretary of the A. M. A., in Atlantic City, will enable the holder to purchase return trip ticket at one-half fare. This is a different plan from that adopted by the State Medical Association, it will be noted. The one-way fare from Dallas or Fort Worth, is $58.51, which will make the round trip $87.77. The Pullman fare to Atlantic City will be $18.00, making a total cost for the round trip of $123.77. Those who expect to remain in the East for a time will doubtless find it convenient to purchase the regular summer tourist ticket, which allows of ample time (October 31) and carries ample stopover privileges. The round trip rate for this ticket

is $95.12, the Pullman fare remaining the same, of course. There is a special round trip rate to Ashbury Park and return, of $99.91. If this ticket is used, it should be routed by way of Philadelphia, and it will be necessary to purchase a side trip ticket from Philadelphia to Atlantic City and return. This ticket will probably best suit those who expect to spend some time in New York City.

It is said that there are over 1,200 hotels in Atlantic City. Notwithstanding this fact, it will be well for those who expect to make this trip to arrange in advance for hotel accommodations. Communications should be had with the hotels direct, but if arrangements cannot be had in this manner, applicants should write to Dr. David B. Allman, chairman of the Hotel Committee, 104 St. Charles Place, Atlantic City. *The Journal of the A. M. A.* for April 18, carries a list of the leading hotels, together with the character of accommodations offered and prices.

Any member of any state medical association may become a Fellow of the American Medical Association at the time of registration at the annual meeting, by the simple procedure of filling out a card which will be furnished at the Registration Office. It is best, of course, to perfect Fellowship before reaching the place of meeting, which can be done by writing to Dr. Olin West, the Secretary, at 535 North Dearborn St., Chicago. Any subscriber to *The Journal of the A. M. A.* who is a member of his state association, may transfer to Fellowship without additional cost, simply by filling out another card and establishing the fact of his association affiliations. Fellows should take their cards with them, as registration will be facilitated thereby, but those who forget their cards may register easily by establishing the fact of their Fellowship, the difference being merely the time it takes to look up the records.

The April 18 number of *The Journal of the American Medical Association* contains full and complete information in regard to the Atlantic City session.

Dr. Graves Resigns From Medical Department Faculty.—We learn with regret that Dr. Marvin L. Graves, professor of medicine and lecturer on mental and nervous diseases in the medical department of the University of Texas, has resigned his position, effective at the conclusion of the present school year. The reason given by Dr. Graves for his resignation is that he is under the necessity of curtailing his work and official responsibilities, and desires greater leisure than is compatible with his present many teaching duties. We are informed that Dr. Graves will continue in the general practice of medicine. His successor will be chosen as soon as possible, and suggestions from friends of the institution in regard to the matter, will be gladly received by Dean Dr. Keiller. We take it the entire medical profession of the State is interested in seeing that this important position is well filled, as it would be should a similar condition exist in our other medical teaching institution, the medical department of Baylor University. Under the new order of things, it is no longer a partisan matter to consider the welfare of our medical colleges. It is with the greatest difficulty that our medical schools are able to care for the demands made upon them, and it has come to be the general understanding that the source of medical knowledge and our supply of physicians, is of the greatest and perhaps equal importance to all of us, including the laity.

Dr. Graves has been connected with the medical department of the University of Texas in his present capacity for over twenty years. It is interesting to contemplate the results of his influence in this connection. How many medical students have been inspired to put forward their greatest endeavors in mastering the intricacies of medicine; how many practicing physicians have through his influence developed the urge to relieve suffering and prevent disease, over and above the necessities of their lives; how many patients have been relieved and how many lives saved, indirectly by virtue of his devotion to a great cause? We are prompted to these few remarks not alone because of the devotion of Dr. Graves to the duties of his teaching position, but as well because of the sacrifices that are made by all who are devoting their lives to the great work of teaching medicine. Our best wishes, and we are sure the best wishes of the medical profes-

sion generally, go with Dr. Graves into the field of his private endeavors.

Graduate Medical Education in the United States.—The Council on Medical Education and Hospitals of the American Medical Association, in accordance with the principles concerning postgraduate medical education which were adopted by the House of Delegates of the American Medical Association, in June, 1923, has made a careful survey of the postgraduate medical schools in America, and has obtained reliable information concerning many such schools in Europe. A detailed report concerning both graduate and postgraduate schools and giving a list of those schools that have been approved by the council, appeared in *The Journal of the American Medical Association* for March 28, 1925. In this report the attitude of the council is clearly set out as follows:

"The principles aim to provide more abundant facilities for the training of general practitioners: the fact being recognized that any course of instruction which will improve the physician's knowledge or skill will be of service, both to him and to his patients. At the same time, however, it is believed that he will secure much better instruction if the courses are arranged in a graded series whereby he can progress from one course to another and know that he is continually advancing in his work instead of being forced, as heretofore, to make a selection from a maze of unstandardized short courses, which may or may not provide him with the instruction he most needs.

"In regard to courses leading to the specialties in graduate schools and in hospitals, the council is withholding its approval from the present-day arrangements whereby physicians are being permitted to rush into some specialty without having developed the knowledge and skill which would justify such action. Here again, there is no attempt to prevent any physician from taking any course he desires, nor to hinder an individual or institution from offering instruction in any course. The council merely asks that such courses be given in accordance with certain principles if they are to have the council's endorsement.

"The principles adopted in regard to courses for the training of specialists are being applied chiefly to certain hospitals and to groups of courses which, to a deplorable extent, are being used as short-cuts to the practice of specialties by many who cannot or do not obtain therefrom the proficiency which should be required. Neither the American Medical Association nor any other body of self-respecting people would endorse such a procedure; nor should they appear to do so by failing to do what they can to prevent it. The council is withholding its approval from certain courses until adequate safeguards against their abuse have been established by the institutions offering such courses. These safeguards can be established without much difficulty by the graduate medical schools, (a) by having their courses properly graded; (b) by ascertaining the educational and professional qualifications of the physician-students, and (c) by admitting to any course only those students who are found to possess the essential prerequisite work or training. Such grading is, indeed, more essential for graduate students than for undergraduates, since the qualifications of the former now vary to a greater extent."

The council very properly takes the ground that admission requirements for postgraduate medical schools should be as rigid, or even more so, as those for the graduate school. They also insist that records should be kept of each student's work, showing clearly the work done and evidence of the student's proficiency, and that there should be careful and intelligent supervision of the school by some executive officer who has sufficient authority to carry out "fair ideals as determined by the present-day needs of graduate medical education." Grading of such courses is also insisted upon, in order that the student may obtain such progressive work as will prepare him for the practice of a chosen specialty, and the advanced student would profit by being able to complete his preparation in a shorter time. The importance of a well-trained and responsible corps of teachers was also stressed by the council, as was the necessity of proper laboratory and library facilities. The importance of combining actual work with didactic instruction and adequate hospital and dispensary facilities in connection with courses of instruction, is rightly insisted upon. The question of diplomas, certificates and advanced degrees, is also taken up and the same care in their award urged as in the awarding of degrees of Doctor of Medicine. The following is a list of approved graduate medical schools and hospitals providing approved residencies in certain specialties:

Albany Medical College, Albany, N. Y.—Courses in Infectious Diseases and Public Health; Dr. Chas. C. Duryee, Director.

Barnes Hospital, 600 S. Kingshighway, St. Louis.—Courses of instruction in the Dietetic and Insulin Treatment of Diabetes; Dr. L. D. Burlingham, Medical Superintendent.

Bloomingdale Hospital for Mental Diseases, White Plains, New York.—Courses in Psychiatry; Dr. W. L. Russell, Medical Director.

Children's Memorial Hospital, 735 Fullerton Ave., Chicago.—Special Courses in Infant Feeding, Pediatrics and Otolaryngology; Dr. G. E. Baxter, Secretary.

Columbia University of Physicians and Surgeons, New York.—Higher Degree and General Practice Courses, Special Summer Course in Public Health (U. S. P. H. S.); Dr. William Darrach, Dean.

Cornell University Medical College, New York.—Higher Degree and General Practice Courses; Dr. Walter Niles, Dean.

Detroit College of Medicine and Surgery, Detroit, Mich.—Course in Public Health; Dr. I. Werness, Registrar.

Harvard Medical School, Courses for Graduates, Boston.—Basic Review and General Practice Courses; Dr. Samuel R. Meaker, Dean.

Herman Knapp Memorial Eye Hospital, School of Ophthalmology, 500 W. 57th St., New York City.—Courses in Diseases of the Eye; Dr. Gerald H. Grout, Secretary.

Howard University School of Public Health and Hygiene, Washington, D. C.; Dr. Algernon B. Jackson, Director.

Indiana University School of Medicine, Indianapolis.—Higher Degree Courses; Dr. Charles P. Emerson, Dean.

Johns Hopkins Medical School, Baltimore.—Special Residencies in the Johns Hopkins Hospital and General Practice Courses; Dr. Winford H. Smith, Director, Johns Hopkins Hospital.

Manhattan Eye, Ear and Throat Hospital, School of Graduate Medical Instruction, 210 E. 64th St., New York City.—Special Internships in Eye and in Ear, Nose and Throat; Mr. Reuben O'Brien, Superintendent.

Massachusetts Eye and Ear Infirmary, 243 Charles St., corner Fruit St., Boston.—Special Internships in Eye, and in Ear, Nose and Throat; Dr. Frederic A. Washburn, Director.

Montefiore Hospital, Gun Hill Road near Jerome Ave., New York City.—Special Residencies in Medicine, Neurology, Tuberculosis and Orthopedic Surgery; Dr. Ernst P. Boas, Medical Director.

Mount Sinai Hospital, Fifth Ave. and 100th St., New York City.—Course in Internal Medicine and Pediatrics; write to the Secretary for Medical Instruction, 1E. 100th St.

Neurological Institute, 149 E. 67th St., New York City.—Clinical Clerkships; Dr. E. G. Zabriskie, Secretary, Medical Board.

New Haven Hospital, 330 Cedar St., New Haven, Conn.—Special Residencies in Gynecology, Medicine and Obstetrics; Dr. Willard C. Rappleye, Medical Director.

New York Post-Graduate Medical School and Hospital, Second avenue and Twentieth St., New York City.—Special Internships and General Practice Courses; Dr. William D. Cutter, Dean.

New York Skin and Cancer Hospital, 2nd Ave. and 19th St., New York City.—Courses for General Practitioners; Miss Sara Burns, R. N., Superintendent.

New York Society for the Relief of the Ruptured and Crippled, 321 East 42nd St., New York City. —Special Courses in Orthopedic Surgery; Dr. Joseph D. Flick, Superintendent.

Ohio State University College of Medicine, Columbus.—Course in Public Health; Dr. E. R. Hayhurst, Head of Department of Public Health.

Pennsylvania Hospital, 4401 Market St., Philadelphia.—Courses in Neurology and Psychiatry; Dr. Earl D. Bond, Administrator.

Peter Bent Brigham Hospital, 721 Huntington Ave., Boston.—Special Courses in Medicine, Surgery, Pathology and Roentgenology; Dr. J. B. Howland, Superintendent.

Physiatric Institute, Morristown, New Jersey.—Diabetes and Other Metabolic Diseases; Dr. Frederick M. Allen, Director.

Providence City Hospital, Eaton St., Providence, Rhode Island.—Courses in Contagious Diseases; Dr. D. L. Richardson, Medical Superintendent.

Stanford University School of Medicine, San Francisco.—Summer Courses for Graduates; Dr. William Ophuls, Dean.

State Hospital for Mental Diseases, Howard, Rhode Island.—Courses in Neurology; Dr. Arthur Harrington, Medical Superintendent.

State University of Iowa College of Medicine, Iowa City.—Summer Courses in Public Health (U. S. P. H. S.); Dr. Lee Wallace, Dean.

St. Elisabeth's Hospital, Claremont and LeMoyne Sts., Chicago.—Summer Courses in Clinical Medicine; Sister M. Cordula, Superintendent.

Trudeau School of Tuberculosis, Saranac Lake, New York.—Courses for General Practitioners; Dr. E. R. Baldwin, Director.

Tulane University Graduate School of Medicine (New Orleans Polyclinic), New Orleans.—Higher Degree and General Practice Courses; Dr. Charles Chassaignac, Dean.

University and Bellevue Hospital Medical College, New York City.—Special Courses in Surgery; Dr. John Wyckoff, Secretary.

University of California Graduate Division, Berkeley-San Francisco.—Higher Degree and Public Health Courses (U. S. P. H. S.); Dr. Charles B. Lipman, Dean.

University of Chicago, Rush Medical College, Wood and Harrison Sts., Chicago.—Special and Higher Degree Courses and Residencies; Dr. Ernest E. Irons, Dean.

University of Colorado School of Medicine, Denver. —Course in Ophthalmology; Dr. Chas. N. Meader, Dean.

University of Illinois College of Medicine, Chicago. —Higher Degree Courses; Dr. Albert C. Eycleshymer, Dean.

University of Michigan Medical School, Ann Arbor.—Summer Courses in Public Health (U. S. P. H. S.); Dr. Hugh Cabot, Dean.

University of Minnesota Graduate School of Medicine, Minneapolis-Rochester. — Higher Degree Fellowships and General Practice Courses; Dr. Guy Stanton Ford, Dean.

University of Pennsylvania Graduate School of Medicine, Philadelphia. — Higher Degree and General Practice Courses; Dr. George H. Meeker, Dean.

University of Wisconsin Medical School, Madison. —Course in Public Health; Miss G. K. McRae, Secretary.

Washington University School of Medicine, St. Louis.—Courses in Otolaryngology, Pediatrics, Infant Feeding, Obstetrics and Diseases of the Heart; Dr. McKim Marriott, Dean.

Wills Hospital, Philadelphia.—Residencies, 16 Months, in Ophthalmology; Mr. Stephen Wierzbichi, Superintendent.

Yale University School of Medicine, New Haven, Conn. — Residencies and General Practice Courses; Dr. Milton C. Winternitz, Dean.

Bordeaux.—University of Bordeaux, France.—Special Courses Otorhino-Laryngological Surgery, Bronchoscopy, Plastic, Mastoid and Neck Surgery; for information apply to Dr. Leon Felderman, 4428 York Rd., Philadelphia, Pa.

London.—Hospital for Sick Children, Great Ormond St., London, W. C. 1, England.—Special Graduate Course in Pediatrics; address, Oswald L. Addison, Dean, Medical School.

London.—National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury, W. C. 1, England.—Special Courses and Lectures on the Nervous System; Dr. J. G. Greenfield, Dean, Medical School.

London.—University of London, University Extension Dept., London, England.—Course of Lectures on Medical Hydrology; Dr. Halburt J. Waring, Dean.

Summer Clinics for Practitioners will be held at Baylor University College of Medicine, Dallas, and the School of Medicine of the University of Texas at Galveston, during the month of June. These clinics have been held now for several successive years and

have proven to be very helpful to all who attended. The need of postgraduate instruction is quite apparent to all who have thoughtfully considered the subject. Medicine has been making such progress in all of its departments, that the practitioner finds it impossible to keep fully abreast of the times, even though he may receive and read several first class medical journals. Reading a monograph or an original article in a medical periodical is not as instructive as seeing the work actually done and, better still, participating in it. Many find it inconvenient and costly to go to our Eastern and Northern cities, where most of the postgraduate medical instruction is given at the present time. Our Board of Councilors have sponsored the Summer Clinics at the two medical colleges in the State, and in their annual report have urged that the profession of the State should take a real interest in this work. The deans of the two institutions and the members of their faculties who thus unselfishly offer their services to the profession of the State, are especially to be commended. It is to be hoped that some method for their financial remuneration may be worked out in the near future; we feel that it is too much to ask of these gentlemen, however willing they may be, that they serve gratis in these clinics, year after year. The attendance on the clinics in both Dallas and Galveston has increased materially each year, and it is easily possible that the time will soon come when advance registration will have to be required, and the attendance limited.

The following is the schedule of the clinics to be held at the College of Medicine, Baylor University:

June 1—8:30-10:00 a. m., Diseases of the Heart, Dr. C. M. Grigsby; 10:00-12:00 a. m., Clinic, Pediatrics, Drs. H. Leslie Moore and Ramsey Moore; 1:00-2:30 p. m., Intravenous Antiseptics, Dr. H. M. Winans; 2:30-4:00 p. m., Modern Aids to Labor, Dr. C. R. Hannah.

June 2—8:30-10:00 a. m., Clinic, Diseases of the Thyroid, Dr. R. W. Baird; 10:00-12:00 a. m., Clinic Pediatrics, Drs. May Agnes Hopkins and Paul Luecke; 1:00-2:30 p. m., Diabetes—General Management, Diet, Education, Dr. D. W. Carter, Jr.; 2:30-4:00 p. m., Clinic, Neurology and Psychiatry, Drs. J. J. Terrill and Guy Witt.

June 3—8:30-10:00 a. m., Clinic, Diseases of Stomach and Intestines, Dr. H. C. Walcott; 10:00-12:00 a. m., Clinic, Pediatrics, Drs. H. Leslie Moore and Gordon B. McFarland; 1:00-1:30 p. m., Clinic, Dermatology and Syphilology, Dr. J. B. Shelmire; 2:30-4:00 p. m., Prevention of Still Births, Dr. C. R. Hannah.

June 4—8:30-10:00 a. m., Clinic, Nephritis, Dr. C. M. Grigsby; 10:00-12:00 a. m., Medical Radiology, Drs. J. M. and Charles Martin; 1:00-2:30 p. m., Angina Pectoris, Dr. G. L. Carlisle; 2:30-4:00 p. m., Liver Function Tests, Dr. O. T. Woods.

June 5—8:30-10:00 a. m., Clinic, Diseases of the Blood, Dr. Homer Donald; 10:00-12:00 a. m., Scarlet Fever—Diagnosis, Immunization and Treatment, Drs. H. Leslie Moore and J. S. Hodges; 1:00-2:30 p. m., Clinic, Dermatology and Syphilology, Dr. J. B. Shelmire, 2:30-4:00 p. m., Clinic, Neurology and Psychiatry, Drs. J. J. Terrill and Guy Witt.

June 6—8:30-10:00 a. m., Clinic, Diseases of Liver and Gall-Bladder, Dr. R. B. McBride; 10:00-12:00 a. m., Mental Hygiene, Demonstration of Cases, Dr. H. I. Gosline.

June 8—8:30-10:00 a. m., Clinic, General Surgery, Dr. H. M. Doolittle; 10:00-12:00 a. m., Clinic, Gynecology, Dr. Elbert Dunlap; 1:00-2-30 p. m., Clinical Pathological Conference; 2:30-4:00 p. m., Clinic, Obstetrics, Dr. J. W. Bourland.

June 9—8:30-10:00 a. m., Clinic, General Surgery, Dr. C. M. Rosser; 10:00-12:00 a. m., Clinic, Ear, Nose and Throat, Dr. E. H. Cary; 1:00-2:30 p. m., Surgical Roentgenology, Dr. Charles Martin; 2:30-4:00 p. m., Clinic, Proctology, Dr. L. C. Ellis.

June 10—8:30-10:00 a. m., Clinic, General Surgery, Dr. A. B. Small; 10:00-12:00 a. m., Clinic, Urology, Dr. A. I. Folsom; 1:00-2:30 p. m., Clinic, Orthopedics, Dr. W. B. Carroll; 2:30-4:00 p. m., Gross Pathology, Dr. G. T. Caldwell.

June 11—8:30-10:00 a. m., Clinic, General Surgery, Dr. G. M. Hackler; 10:00-12:00 a. m., Clinic, Ophthalmology, Dr. E. H. Cary; 1:00-2:30 p. m., Cervical Sympathectomies, Dr. J. B. Smoot; 2:30-4:00 p. m., Demonstration of Effects of Certain Drugs on Circulation, Dr. B. F. Hambleton.

June 12—8:30-10:00 a. m.. Clinic, General Surgery, Drs. S. Webb, Jr., and M. E. Lott; 10:00-12:00 a. m., Clinic, Gynecology, Dr. Elbert Dunlap; 1:00-2:30 p. m., Clinic, General Surgery, Dr. C. W. Flynn; 2:30-4:00 p. m., Blood Transfusion; Clinical-Laboratory Conference.

June 13—8:30-10:00 a. m., Clinic, General Surgery, Dr. W. W. Shortal; 10:00-12:00 a. m., Clinic, Urology, Dr. A. I. Folsom.

The schedule for the Clinics at the School of Medicine of the University of Texas, Galveston, will be as follows:

June 8—9:00-11:00 a. m., Surgical Clinic, selected cases of special interest in general surgery, Drs. J. E. Thompson and A. O. Singleton; 11:00-12:00 a. m., bedside discussion and demonstration, with pre- and postoperative treatment of cases; 3:00-5:00 p. m., acidosis in relation to kidney function, Dr. Hendrix, College.

June 9—9:00:11-00 a. m., Medical Clinic, aspects of thyroid disease, Drs. M. L. Graves and J, Kopecky; 11:00-12:00 a. m., medical ward rounds; 3:00-5:00 p. m., the applied anatomy of sacral anesthesia, Dr. H. O. Knight, Anatomy Demonstration Room, College.

June 10—9:00-12:00 a. m., Obstetrical and Gynecological Clinic, according to available cases, Drs. W. R. Cooke, H. R. Robinson and J. L. Jinkins, Sealy Hospital; 3:00-5:00 p. m., Syphilitic Disease of Bone, Dr. V. H. Keiller.

June 11—9:00-10:30 a. m., demonstration of common dermatological conditions, Dr. E. D. Crutchfield, Sealy Hospital; 10:30-12:00 a. m., Gall-Bladder Disease and Cholecystography, Drs. Stone, Milliken and Lechenger; 3:00-5:00 p. m., The Treatment of Eclampsia: The Treatment of Abortion, Dr. W. R. Cooke.

June 12—9:00-11:00 a. m., Surgical Clinic, selected cases of special interest in general surgery, Drs. J. E. Thompson and A. O. Singleton; 11:00-

12:00 a. m., Surgical Tuberculosis in Children, Dr. J. E. Thompson, Operating Room, Sealy Hospital; 3:00-5:00 p. m., Ligature of the Deep Arteries of the Body Through Large Incisions, Dr. J. E. Thompson.

June 13—9:00-11:00 a. m., Medical Clinic No. 1, clinical aspects and medical treatment of gastric and duodenal ulcer, Dr. C. T. Stone; Medical Clinic No. 2, neuropsychiatric clinic, Drs. M. L. Graves and T. H. Harris; 11:00-12:00 a. m., Medical Ward Rounds, Dr. Graves and Staff.

June 15—9:00-11:00 a. m., Surgical Clinic, selected cases of special interest in general surgery, Drs. J. E. Thompson and A. O. Singleton; 11:00-12:00 a. m., Surgical Ward Rounds: demonstrations of apparatus for the treatment of fractures, Dr. A. O. Singleton.

June 16—9:00-11:00 a. m., Medical Clinic, No. 1, chronic ulcerative colitis, Dr. M. L. Graves; Medical Clinic No. 2, neural syphilis and its treatment, Dr. T. H. Harris; 11:00-12:00 a. m., Medical Ward Rounds, Dr. Graves and Staff; 4:00-5:00 p. m., Peripheral Nerve Injuries, Dr. W. Keiller.

June 17—9:00-12:00 a. m., Obstetrical and Gynecological Clinic, according to cases available, Drs. W. R. Cooke, H. R. Robinson and J. L. Jinkins; 3:00-4:00 p. m., clinical pathological conference, Drs. Hartman and Kopecky.

June 18—9:00-10:30 a. m., common dermatological diseases, according to cases, Dr. E. D. Crutchfield; 10:30 a. m., Heart Clinic, with electrocardiograph illustrations, Dr. Joseph Kopecky; 3:00-5:00 p. m., Early Diagnosis of Cancerous and Precancerous Lesions of the Cervix, with lantern slide demonstration of simplified operative technique in pelvic operations, Dr. W. R. Cooke.

June 19—9:00-11:00 a. m., Pediatric Clinic, according to available cases, Dr. Boyd reading; 11:00-12:00 a. m., Intravenous Medication of Syphilis, Dr. E. D. Crutchfield; 3:00-5:00 p. m., Modern Methods of Intestinal Resection, illustrated by operations on lower animals, Dr. R. E. Cone.

June 20—9:00-11:00 a. m., Neurological Clinic, according to available cases, Drs. M. L. Graves and T. H. Harris; 11:00-12:00 a. m., Ward Rounds.

Those who contemplate attending either of these clinics are requested to apply at once to either Dr. W. H. Moursund, dean, Baylor University, Dallas, or Dr. Wm. Keiller, dean, medical branch, University of Texas, Galveston. Those desiring special courses such as clinical diagnosis, *x*-ray or radium therapy, and the like, should when writing make their wants known; in all probability they will be accommodated.

Indications are that these clinics will be more largely attended this year than ever before.

Audience Etiquette.—The typical American audience is unintentionally but nevertheless positively, discourteous. It is discourteous not in big things, but in things that alone would not count, the which together make situations sometimes very noticeable. It is not likely that the average American audience will "boo" or "hiss" any speaker. When it does so, the time for speaking has about passed and the time for action is impending. In some countries, and perhaps in some sections of our own country, petty discourtesies yield to this grosser type, but they do not concern us at this time; we do not care to discuss those conditions which would give rise to insulting behaviour, but deem it appropriate to say a few words in regard to the smaller discourtesies which are for the most part purely thoughtless and which we are sure need only to be mentioned to be corrected.

When a speaker goes to the trouble to prepare a discourse for us, whether or not he succeeds in his purpose to entertain or instruct us, we owe it to him to respect his good intentions and make it as easy for him as possible. That is nothing but the commonest sort of gentlemanly behaviour, and those who would offend in an audience would in all probability not think of doing so in a personal conference. Getting together as we do on seldom occasions, it is not strange that we should pass the time with a friend, and were we the only one doing this, no harm would be done, in all probability, but there are others, and in the aggregate these social amenities succeed in disturbing a speaker considerably, as a rule.

There is another matter which may well be mentioned in this connection. When a medical society invites a distinguished man of medicine to attend its sessions as an honored guest, and read a paper, there is more to the invitation than merely the reading of the paper. As in the case of a guest in the home, the obligation is mutual. Should the host be impolite the guest would justly be offended. The converse should be true. If it is necessary for a guest of a society to depart before his entertainment has been concluded, he should make certain that his necessities are well understood, and that his host understands that he is properly appreciative of the honor sought to be done him. We have seen invited guests rush to a place of meeting, hastily shake hands with a few members, hurriedly read his paper, express himself perfunctorily as being appreciative of the honors done him, and then without further to do catch the next train back to his business. That is neither polite nor good business. The same individual would be very profuse in greeting his host at any ordinary reception, and would not think of departing until the reception was practically over, and not then until he had had an opportunity to bid his host adieu and again express his appreciation of his entertainment.

In short, it is a poor rule that won't work both ways. We have sometimes wondered what an audience would do to a speaker who would prove as ungracious or as thoughtless in his behaviour as his audience often is.

ORIGINAL ARTICLES

INTRACRANIAL HEMORRHAGE OF THE NEW BORN.*

BY

WILMER L. ALLISON, M. D.,
FORT WORTH, TEXAS.

Every physician frequently sees some child whose anxious parents are seeking relief for conditions which are now known to be due to intracranial hemorrhage of the new born. These conditions vary widely from a simple mental retardation or a mild spasticity or rigidity, with but slight deformity, to the horrible and utterly helpless case of cerebral diplegia with gross idiocy and convulsions. There may be deafness, blindness, convergent or divergent eyes, microcephalus, or hydrocephalus, or normal heads and atrophied arms or legs, with marked contractions and deformities. Many of these patients see the doctor first because of spasms or convulsions. Many of these cases have only petit mal attacks, while others have severe convulsions or present problems of behavior or undue restlessness. There may be only one limb involved, or one-half of the body, or maybe both legs, or all the limbs. These cases comprise a large number of the epileptics, idiots, imbeciles and weak-minded.

And there are many of these children. Almost every neighborhood has its one or more cases. Our eleemosynary institutions for the deaf and dumb, defective, blind, epileptic and insane, contain large populations of them. Thousands of them are hidden at home and carefully guarded from the public eye. Many a devoted and heart-broken mother is spending the best years of her life in slaving attendance on a child of this kind. Many a child has been deprived of its proper advantages, because a brother or sister thus unfortunate, has drained the family purse in vain efforts to find a cure. Our public schools face the problem of educating these unfortunates and institutions for the defective are continually being built or enlarged to accommodate them, and our tax rate ascends in proportion. These cases vary from a mild type requiring skillful differentiation to the gross type with which every one is familiar. The economic loss is beyond compute for these cases rarely become self-supporting.

It is as a plea to you, the general practioner, and to you, the obstetrician, to recognize these cases during the first few days following birth and to immediately institute prompt measures to cure and relieve the underlying cause of these conditions, that this paper has been prepared. When the first two weeks of infancy have passed, the chance for relief and preventive treatment is practically gone and even the chance of recognition of the condition has largely passed, for it is often some six, eight or ten months before evidences of mental and physical retardation and spasticities begin to be noticed.

When the child reaches this age, it is noticed that it has not learned to sit alone as it should; that dentition is delayed; that one leg or arm is smaller than the other or that there is some rigidity and the child is not using its limbs equally or normally. It may be that spasms or convulsions have begun or they may begin later, in fact at any time. Later, disappointment comes when the child does not learn to walk or talk at the proper time, or perhaps does not learn at all, and yet the parents are hopeful that the condition will be outgrown and they are frequently encouraged in this belief by their physicians.

Usually, the parents have consulted many physicians during this period of failure of normal development, only to be met with disappointment in the end. To be sure, bromides have been tried for weeks, months or years for the relief of the convulsions, and almost every remedy has had its try at the case, nor has the christian science healer, the osteopath or the chiropractor been neglected. And what result has this frantic grasping at straws brought about—benefit to the child? Perhaps in some mild cases, a little benefit has resulted, but in the majority, none. On the other hand, the mother and father, and the doctor, have discussed the matter from every angle and have reached the conclusion that it is some strange visitation of that little understood thing, heredity. The question of having more children arises, and their arrival is awaited with fear and dread.

There is practically one cause for these many end results, an intracranial hemorrhage or injury. In nearly all of these cases, this hemorrhage takes place at birth or within the first few days of life. At this time the condition is not usually recognized, except possibly in extreme cases; and, if the child lives, the later chronic condition is not associated with the mild symptoms which were present early but is ascribed to some obscure lack of development of certain brain and cord areas or tracts. When Little[1] first described the disease bearing his name, in 1843, which disease itself is one of the extremes met with, he believed the condition caused

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, San Antonio, May 1, 1924.

1. Little, W. J.: Lancet, December 16, 1842.

by impairment of nerve tissue from lack of development and also to an earlier meningitis. However, in 1862, Little[2] gave it as his opinion that 75 per cent of the cases were due to intracranial hemorrhage.

Sharpe[3] has called attention to the fact that the hemorrhage may be partly absorbed and the infant considered normal for several months when physical retardation shows up. Mental retardation is slower in making its appearance but, grossly, it may appear as a retardation or imperfect development of speech, or as behavior problems.

The clinical evidences of intracranial hemorrhage during the first ten days after birth may be very vague, or at least not marked; and yet this is the time for treatment of the hemorrhage itself and to prevent the later development of the chronic and nearly hopeless after-state. The new-born child is so purely a mass of untrained protoplasm and its brain so little developed that any abnormal sign is sufficient to call for careful examination as to its cause. Asphyxia, especially if prolonged or appearing after normal breathing, may be due entirely to intracranial hemorrhage. Intermittent cyanosis is extremely suspicious. Any undue rigidity or spasticity and twitching of muscles or limbs must not be dismissed with the simple statement that the child will outgrow it. The bulging fontanelle, of course, tells its own story, provided it is noticed, or the pressure is sufficient to produce it. Ophthalmoscopic evidences of increased intracranial pressure are rarely present, especially in the mild cases. Stuporous conditions or dullness and a failure to nurse should immediately call attention to the possibility of hemorrhage.

Much information as to the immediate signs of intracranial hemorrhage can be gained by careful questioning of the mothers of the later chronic cases. A mother of a helpless cerebral diplegic with convulsions, forty years old, recently told me that one of her outstanding memories of the first few days of the child's life was attacks of cyanosis occurring every day or every few hours but which were always over when the doctor arrived. Convulsions, or their equivalent, mild spasms, even without unconsciousness, should be looked upon as certainly due to intracranial hemorrhage unless proven to be otherwise.

In getting the early history of 671 cases of cerebral palsy, Sharpe found that 64 per cent of them had been more drowsy and stuporous than normal during the first two weeks of life; 23 per cent had refused nourishment; 78 per cent had not made the normal demand for food; 39 per cent had had muscular twitching, especially of the orbital, hand and leg muscles; 17 per cent had had convulsions; 18 per cent had shown jaundice, and that in one month; 82 per cent of the cases had been considered normal, and 79 per cent of them had not shown any spasticity before 7 months. He also states that in the mildest cases there may be no early symptoms. Holt[2] states that even small hemorrhages usually produce permanent injury which may not be manifest for years.

The author has observed in several cases an almost continual crying during the first few days of life. In one case seen recently, the tongue seemed held too tightly against the palate to permit sucking and the frenum was clipped. Intracranial hemorrhage is far more common than most of us know about. It requires only a search through recent medical literature to convince one that it is one of the most common of pathological incidents in the first few days of the infant's life.

One is first struck with the fact that such cases of cerebral palsies occur largely in first-born males at full term in prolonged or difficult labors, in instrumental deliveries, breech presentations, in cases in which the mother had pituitary extract or in precipitate labors.

However, the hemorrhage may occur before birth, from the cord about the neck, intrauterine asphyxia or trauma.[3] Losee[4] states that intracranial hemorrhage is the most common finding in intrauterine deaths and in infant deaths in the first few days of life.

Schwartz[5] found the effects of birth trauma, hemorrhage and softening visible to the naked eye in 65 per cent of all the newborn dying within five months, and concluded that the pathology and pathological anatomy of the earliest period of infancy is determined mainly by birth injuries of the central nervous system.

Deluca[6] found evidences of laceration of the dura and meningeal hemorrhage in 36 per cent of 554 infants' cadavers, and also in 34 of 201 cases in which delivery was supposed to be normal.

Warwick[7] says that cerebral hemorrhage occurred in 50 per cent of 36 fatal cases at the University Hospital, and that hemorrhagic disease of the newborn was a cause of cerebral hemorrhage in 44 per cent of the deaths in their series.

2. Little, W. J.: Obst. Tr. 3, p. 293, 1862.
3. Sharpe, W.: Jour. A. M. A., August 25, 1923.
4. Losee, J. R.: Lying-In Hosp. of N. Y. Bulletin, July, 1922.
5. Schwartz, E.: Münchener Medizinische Wochenschrift, July, 1922.
6. Deluca, F. A.: Semana Medica, Buenos Aires.
7. Warwick, Margaret: Am. Jour. Med. Sc., July, 1919.

Cornell[8] says that a baby delivered in less than two hours after labor has started is frequently subject to hemorrhage. Capon[9] states that of 28 new-born deaths, sixteen were due to birth trauma, and that of 52 still-births, 24 had hemorrhages and 31 lacerations of the dura. Cruickshank[10] found meningeal hemorrhage in 65 out of 200 mature infants. Sharpe[3] in lumbar punctures of 100 consecutive newborn, found blood in 9 per cent of them, and in 13 per cent of a second series[2] of 100 cases.

Munro and Eustis[11] believe that the diagnosis of intracranial hemorrhage should be based on (1) history and physical examination, (2) measurement of intracranial pressure by the spinal fluid manometer, and (3) determination of the coagulation and bleeding time.

By lumbar puncture, evidence of intracranial hemorrhage can be obtained in perhaps the majority of the cases. Sharpe[3] says that lumbar puncture is less valuable after two weeks. This is, of course, manifest, since clotting must have taken place and no free blood will be found in the spinal fluid. There will be no blood in the spinal fluid unless the hemorrhage is meningeal or ventricular or ruptures into these areas.

Many cases of intracranial hemorrhage are due to hemorrhagic disease of the newborn and in such cases prompt and efficient measures for stopping bleeding should be instituted.

Convulsions may be associated with the intracranial hemorrhage and are thought in some instances to be the cause of the hemorrhage. Rosamond[12] found that 14 of 17 cases of convulsions in the newborn, showed delayed clotting and were probably due to cerebral hemorrhage. One of these was a cesarean baby. Rosamond believes a routine determination of the blood clotting time should be made in all cases and that this would reduce the mortality in the newborn practically 50 per cent and probably prevent a large number of cases of birth palsies.

Huenekens[13] says that the loss of coagulating power begins on the second or third day and may last a week or ten days if not treated. Warwick[14] found that 5.2 per cent of 250 infants showed a prolongation of coagulation time and recommended that the bleeding time and coagulation time of every new-born infant be determined on the third, fifth and ninth days. Falls[15] states that the maternal and fetal blood at the time of birth of the baby, have practically the same coagulation time, and that fetal blood at birth clots with normal firmness and rapidity, so that subsequent hemorrhagic tendencies cannot be detected from coagulation tests at this time.

Rodda[16] states that the average coagulation time in newborn infants is 7 minutes and ranges from 5 to 9 minutes, and also that the coagulation time is progressively prolonged until the fifth day, returning to normal by the tenth day. He states that most spontaneous hemorrhages of the newborn occur from the second to the eighth day. Helmholtz[17] makes it a routine to give a prophylactic injection of blood in severe and prolonged labors. Deluca[6] states that meningeal hemorrhage very well explains jaundice of the newborn in some cases, and that therefore jaundice may sometimes be regarded as a sign of meningeal hemorrhage.

TREATMENT.

When intracranial hemorrhage is recognized, it is, of course, necessary to control the hemorrhage and to reduce the increased intracranial pressure, thus relieving the edematous or wet brain before destruction of the cells and their fibers has taken place.

Spinal drainage not only enables us to determine the presence of hemorrhage in many cases, but also reduces the pressure. To be of real benefit, treatment must be given during the first week or two weeks of the child's life, when the blood is still in a fluid state, and can be removed through spinal drainage. If repeated spinal drainage does not rapidly clear up the symptoms, a cerebral decompression should be done, when possibly larger quantities of blood can be removed and more pressure released, thus permitting brain cells not only to resume their function but also preventing their destruction. This operation can be done quickly with no harm to the child and no harmful after effects. Holt[3] doubts the value of lumbar punctures and advises early surgical treatment.

For control of the hemorrhage itself, the simple methods may be tried first such as the calcium salts or thromboplastic serum in large doses. It may be necessary to follow this by whole-blood transfusion which may be through the longitudinal sinus or the jugular veins. Prompt and efficient measures are necessary. If clotting time is found to be delayed in the newborn, even when there are no indications of hemorrhage, prompt measures should be taken to remedy

8. Cornell, E. L.: Chicago, Jour. A. M. A., August 25, 1923.
9. Capon, N. B.: Jour of Ob. and Gyne. of the British Empire, Vol. xxix, p. 549, 1922.
10. Cruickshank, J. N.: Lancet, April 28, 1923.
11. Munroe, D., and Eustis, R. S.: Am. Jour. Dis. of Child., October, 1922.
12. Rosamond, E.: South. Med. Jour., August, 1922.
13. Huenekens, E. J.: Jour. A. M. A., August 25, 1923.
14. Warwick, M.: Minnesota Medicine, December, 1922.
15. Falls, F. H.: Jour. A. M. A., November, 1922.
16. Rodda, F. C.: Am. Jour. Dis. of Child., April, 1920.
17. Helmholtz, H. F.; Jour. A. M. A., August 25, 1923.

this. Falls[18] concludes that blood transfusion by the citrate method is a specific for hemorrhage of the newborn and suggests this procedure in severe icterus neonatorum.

Treatment of the later chronic condition, is largely a matter of correcting deformities by orthopedic measures and treating the convulsive states. There is no doubt that there is a large endocrine element in these cases, and for each case the individual endocrine problem should be worked out and handled accordingly. There is much evidence clinically to indicate that the pituitary gland is probably more often at fault. The retarded growth, lack of gain in weight, lack of appetite or fickle appetite, undue restlessness, exaggerated affections, bed-wetting, obstinacy amounting sometimes almost to negativism, petit mal attacks, delayed dentition and many other symptoms, all point strongly to a lack of pituitary secretion, mainly of the anterior lobe. Desogus[19] demonstrated in 50 dogs that a disturbance of the pituitary followed experimental cerebral lesions.

The very nature of the convulsions or spasms and petit mal attacks in these cases is that of a pituitary type. The attacks sometimes last for an hour or more and require anesthesia for their control, differing in this respect from epileptic convulsions. Not infrequently, these attacks are not accompanied by loss of consciousness and there are attacks lasting for several minutes, during which there are no convulsive movements or real loss of consciousness, but rather an automatic state in which the child appears dazed. Then too, the various attacks are frequently not followed by a deep sleep as in epilepsy, though the patient may remain somewhat automatic for several hours. The attacks are often of a tonic nature rather than clonic, though broken at intervals by some jerking or clonic movements. Pituitary extract, particularly of the anterior lobe of the gland, is coming to be well recognized as of much value in these cases. In my own experience, it has entirely stopped the attacks in a number of cases and at the same time has given the child a definite start in progressive physical development, increasing the appetite and changing its fickle nature. In this connection, Patterson[20] has shown that of 128 cases of epilepsy presenting some endocrine manifestation, the great majority fall into the pituitary group. Many cases of epilepsy not presenting gross evidence of hemorrhagic origin are doubtless of that nature.[21]

18. Falls, F. H.: Jour A. M. A., March 10, 1923.
19. Desogus: Schweizer Arch. für Neurol u Psychiatric, 1922, Vol. xi, No. 2.
20. Patterson, H. A.: Am. Jour. of Psych., January, 1923.

Dandy has shown by operation on epileptics and by ventriculography that there is a pathologic basis for idiopathic epilepsy in a large proportion of cases which show distortion of ventricles, acquired or congenital.

As previously stated, the purpose of this paper is to impress upon you the cause of the unfortunate chronic condition and to direct your attention to the fact that many of these cases can be recognized during the first two weeks of life, at which time treatment must be given if we hope to prevent the later practically hopeless states. If my remarks cause you not only to be on the lookout for these conditions but also to institute prompt and efficient measures for their relief, many of the otherwise chronic later cases will be saved to a useful life and preventive medicine will have scored another triumph.

ABSTRACT OF DISCUSSION.

Dr. W. W. Looney, Dallas: While it is probably correct that few, if any, true idiots are produced by birth injuries, yet many cases of feeble-mindedness and other abnormal conditions result from birth trauma. A great many of these cases doubtless result from negligence and failure to recognize intracranial injuries in the newborn, and hence the failure to institute early treatment. Any abnormal movements of the child, soon after birth, should be thoroughly investigated. Hemorrhage into the brain that is sufficient to cause pressure, if left too long, will bring about a destruction of nerve cells; and the longer the blood clot is allowed to stay, the less likelihood there is of a normally developed brain. If not treated at all, the child becomes permanently disabled, and will become a victim of the quacks. Many doctors do wrong in telling the parents that the child will outgrow the condition. Most movements of the newborn are of the reflex variety, making it more difficult to actually recognize abnormal movements.

Stress should be placed upon the fact that the indiscriminate use of pituitrin, especially in primipara, often produces serious intracranial injuries.

Dr. H. Reid Robinson, Galveston: Pelvimetry is of value in every obstetrical case, so that an early diagnosis may be made of any suspected contracted, rhachitic or distorted pelvis, and prophylactic treatment instituted. In abnormal head presentations such as an anterior parietal or posterior parietal, the prolonged pressure is likely to cause harm. In such cases the child's head must pass through a shortened conjugata vera, and if this is less than 9 cm. it is out of the question for the head to pass, unless there is marked diminution in size. So in such cases we meet with marked distortion, tentorial tears or even fetal intracranial hemorrhage. Aside from the mechanical dystocias or forceps-blade injuries, intracranial injuries in the so-called normal labors are found at autopsy. Constant pressure on the aftercoming head is a frequent etiological factor, and in such a case autopsied at the Sealy Hospital subarachnoid hemorrhage was found and even into the brain substance. In another case of normal labor, there was hemorrhage into the brain and clots found at the base of the skull. In such cases as the latter, there are probably other causative factors,

21. Sharpe and Moclaire: Surg., Gyne. and Obst., February, 1924.

such as prematurity, syphilis, or hemorrhagic diathesis.

Dr. Allison, (closing): In those cases of intracranial hemorrhage accompanied by convulsions, I want to condemn the long continued use of bromides which, while they may lessen the number of convulsions, at the same time further deteriorate the mental and physical condition of the child, and in the end do no good. There is no question but that many cases of mental retardation are due to intracranial hemorrhage; doctors too frequently do not examine the baby close enough to determine the question of hemorrhage.

Every newborn babe should be thoroughly examined as soon as convenient after birth, and once or more after this. How many of these patients may be completely relieved by treatment remains to be seen; some of them cannot be relieved at all, while many others can be entirely relieved. I saw a case recently of a breach presentation in which the infant's hands were spastic. Following the withdrawal of 5 c.c. of bloody spinal fluid, there was complete relief, and in three days the baby was entirely normal. It is to be hoped that this baby will develop normally, with no mental or physical retardation.

INTRACRANIAL COMPLICATIONS OF EAR AND ACCESSORY NASAL SINUS INFECTIONS.*

BY

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The intracranial complications of ear and accessory nasal sinus infections consist principally of generalized meningitis, meningo-encephalitis, localized meningitis or epidural abscess, brain abscess and sinus thrombosis. Inasmuch as brain abscesses fall more within the field of the neurological surgeon, I shall confine my discussion principally to this conditon.

PATHOLOGY.

The route of infection in brain abscesses may be through direct extension from the source of infection, whether from the ear or the accessory nasal sinuses. Necrosis of the bone overlying the dura occurs, and then the extradural abscess or meningitis with extension through the dura into the brain; or the extension of the infection along the blood vessels into the substance of the brain may result in an abscess, in which case there is no communication in the form of a tract between the source of infection and the abscess, which is usually subcortical.

In direct extension from bone necrosis, there is first a localized meningitis or an epidural abscess. In ear infections this may be located over the roof of the tympanum, the roof of the mastoid antrum overlying the sinus, or the infection may pass from the labyrinth through the internal auditory meatus and extend extradurally along the posterior surfaces of the petrous portion of the temporal bone resulting in meningitis or an extradural abscess in this region, or a cerebellar abscess. In frontal sinusitis, there results a necrosis of the frontal bone back of or above the sinus with a localized meningitis or epidural abscess. If an epidural abscess is not evacuated, the barrier furnished by the dura may be penetrated and infection extend into the brain. At first, there is either a generalized meningitis or a localized meningo-encephalitis, and in the latter case, the infectious process localizes with abscess formation. Communication of an abscess with the dura at the site of invasion, may later close, leaving a subcortical abscess in which there is no stalk leading to the dura. In bone necrosis following frontal sinusitis in which the above process takes place, the abscess is usually located in the frontal lobe. If the roof of the tympanum is the route of infection, the abscess is usually either in the middle fossa extradurally, or in the tempero-sphenoidal lobe subcortically. If the posterior wall of the mastoid antrum is the route of infection, through necrosis, there may be an extradural abscess in front of the sinus or a sinus thrombosis and, secondarily, a cerebellar lobe abscess.

If the infection travels along a blood vessel, the abscess is usually subcortical and there is no stalk connecting the abscess with the dura. In the ear, the superior petrosal sinus receives blood from the temporal lobes and the tympanic cavity and a tempero-sphenoidal lobe abscess results from thrombophlebitis of these vessels. The lateral sinus drains the cerebellar lobe and therefore a cerebellar abscess is liable to form following a sinus thrombosis.

The process of encapsulation of an abscess depends upon the virulence of the infection and the nature of the tissues that proliferate to form the wall. In the case of a virulent infection in which there is a localizing encephalitis, encapsulation may not take place and the process may extend, with a resulting rather diffuse encephalitis and death from this cause. If the abscess is superficial and the dura takes part in the formation of the wall, a firm abscess wall is formed. If the infection is deep and the glial tissue proliferates to form the abscess wall, it is less firm and more easily ruptured.

SYMPTOMS.

Localized Meningitis or Epidural Abscess. Following an ear or sinus infection, a necrosis of the bone adjacent to the dura may occur, resulting in a localized meningitis which may persist for a considerable period

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of time with extremely few symptoms resulting. There are usually localized headaches at the site of the infection, some tenderness on percussion, and a fever varying from normal to 102 degrees. This condition, due to the mildness of the symptoms it produces, contrasts markedly with the symptoms presented in a generalized meningitis, sinus thrombosis, or first stage of abscess formation.

Brain Abscess. The symptoms of brain abscess may be divided into three stages. The *first or initial stage,* or stage of encephalitis with formation of pus, is characterized by a rather marked elevation of temperature, severe headaches, general malaise or prostration, a slow pulse as compared with the high temperature, high blood count and a choked disk in from 40 to 50 per cent of the cases. In this stage there is invasion of brain by the infectious process and the formation of pus, and at the same time, the proliferation of the tissues in an attempt to wall off the infection. If walling off does not take place, the patient passes rapidly into the terminal stage, in which there is either diffuse encephalitis or meningitis, and the patient dies.

If walling off takes place, the patient passes into the *second stage,* which is characterized by a subsidence of the general symptoms; the headaches and fever disappear and the patient appears to be improving. This stage may last anywhere from a few weeks to several years, but he can at no time be considered well. There is a progressive emaciation and usually some hangover with occasional headaches and vertigo and attacks of malaise. It is in this stage that surgical intervention is most satisfactory, and cases in which there have been symptoms of intracranial symptoms following ear infections that have subsided and yet in which the patient is not quite well, should be examined repeatedly for brain abscess. Occasional examinations of the fundi should be made. Sooner or later the patient passes into the *third stage* in which the abscess again becomes active and ruptures. This is characterized by a rapid and sudden rise in temperature, with coma and delirium, a pulse slow at first but soon becoming rapid—signs of generalized meningitis—and death in coma. It is only after the beginning of this stage that many cases are rushed to the surgeon for relief and it is then usually too late for surgical relief because a generalized meningitis is present.

Localizing Symptoms. These symptoms may result from an abscess in any part of the brain and, in many cases, localizing signs never appear. We can have a fair idea of the location by, first, knowing the usual location of an abscess in the brain, following any certain source of infection, and, second, by focal signs in many cases. If the abscess follows an ear infection, the most common site is the temperosphenoidal lobe on the same side and the next most common—about one-third of the cases—the cerebellar lobe on the same side. If it is the right temperosphenoidal lobe involved, there are no symptoms except those general symptoms of brain abscess with increased intracranial pressure, because this is a silent area. Occasionally there is a paralysis of the sixth nerve on the same side and motor paralysis on the opposite side, but these are unusual. If the left temperosphenoidal lobe is involved, there is usually aphasia. In cerebellar abscesses, the symptoms are usually vague and the localizing signs not definite. There may be incoördination of the upper and lower extremities on the same side, nystagmus, etc., but this is by no means the rule. In abscesses following frontal sinusitis, there is usually headache on the side of the lesion, tenderness to percussion over the area of abscess, and often Jacksonian convulsions and motor weakness on the opposite side. At times, occipital lobe abscesses follow ear infections, in which case homonymous hemianopsia will localize the region. In a few cases in which it is impossible to localize the abscess, a carefully performed air injection may be done. I mention this with hesitancy, as there is great danger of rupturing the abscess, either in puncturing the ventricles or in lumbar puncture. However, if the ventricle punctured is on the opposite side from which the abscess is suspected and only a few drops of fluid is allowed to escape at a time and the aspirated fluid is immediately replaced with air, the procedure may be carried out without materially changing the intracranial pressure and with little danger of rupturing the abscess. I feel that this method is, at times, invaluable in localizing an abscess or in clearing up a doubtful diagnosis in obscure cases.

The management of intracranial complications following ear and accessory nasal sinus infections, is often very trying. I feel that it is very essential to first carefully eliminate the source of infection by an exploratory operation if necessary, and if there is an extradural abscess, to evacuate it. If the presence of an abscess is suspected, careful search for the avenue of infection should be made; and if there is an abscess connected with the dura, it should by all means be drained through this route. When this is done, the chances for recovery are excellent.

If the roof of the tympanum is the seat of the necrosis, the dura should be uncovered over this region into the middle fossa and the middle fossa explored for extradural abscess and for a sinus tract leading to an abscess. If the roof of the mastoid antrum is necrosed, the lateral sinus should be uncovered, together with the dura over the anterior part of the cerebellar lobe. And if the labyrinth is involved, bone should be removed down to the internal auditory meatus or aqueductus vestibuli. If a dark area over the dura is found, this should be incised and the brain explored for abscess. If the frontal sinus is the source of infection, the frontal bone in back of and above the sinus should be explored.

If no tract leading to a subcortical abscess or an extradural abscess is found, I feel that the wound should be closed and either at this sitting or at a latter date an exploration through a clean field should be done. The trephine should be ample but not large, so as to avoid subsequent hernia formation. If the brain abscess is subsequent to ear infection, the trephine should be made above the zygoma through the squamous portion of the temporal bone. If the abscess follows a frontal sinusitis, the trephine should be made above the frontal sinus through the frontal bone. If the cerebellar lobe is suspected, a flap should be turned down over the occipital bone on the side involved.

After the trephine is made, the dura should be opened, and then one of two procedures can be carried out. The first of these is that suggested by Ballance, in which the subarachnoid space is packed and after 24 hours the wound is reopened and search made for the abscess. In this way the subarachnoid spaces are walled off and a generalized meningitis following drainage of an abscess avoided. The second, is that suggested by Dowman of Atlanta, in which, after the dura is opened, the abscess is located by punctures, but the abscess wall is not entered. A filiform is then passed down to the abscess wall but not into it and this is left in place for 24 to 48 hours. The wound is then reopened and the abscess wall punctured and drainage inserted. The method of draining is of no great importance, except that the drainage should be ample. I prefer the use of sections of a rubber catheter as drainage tubes. The tube should be left in place until the abscess wall collapses and fills in and there is nothing left but a small tract leading to the site of the abscess. When this stage is reached, there will be only a thin serous drainage, at which time the drainage tube can be removed and the wound allowed to close, which usually takes from one to four months.

In conclusion, I wish to emphasize the importance of surgical intervention in cases of ear and accessory nasal sinus infections in which there are signs of intracranial complications. Even though the symptoms of intracranial involvement subside spontaneously, these patients should be regarded as abscess suspects, especially so if an occasional attack of headache, vertigo and loss of weight persists. Frequent examinations of the fundi should be made. I want to urge that more frequent explorations be done for brain abscess. This procedure is harmless if carefully done and is often life-saving. Finally, if any doubt remains as to the location or presence of an abscess, ventriculography may be resorted to, and I feel that this procedure is justified in some cases.

ABSTRACT OF DISCUSSION.

Dr. J. M. Woodson, Temple: I want to emphasize what the essayist said about searching through a clean area. I would like to report the case of a boy who had a stroke over the forehead, resulting in a frontal sinus abscess. I enlarged the opening and found that the inner table was necrotic. The necrotic area was removed and the case began to clear up. Later, convulsions set in and the opening was made larger and a pack introduced. Convulsions numbering from fifteen to twenty-five per day continued. He was entirely unconscious and bore the appearance of a moribund patient in a state of constant convulsions, except when under morphine. About a week later the patient gave evidence of improvement. There was less need for morphine, and in two weeks the morphine was discontinued. The patient eventually recovered.

I would like to report, also, the case of a baker, who developed a headache on Christmas day. Early in January, he was examined with negative result. On January 30, he was found to have a bulging in the right ear drum. An *x*-ray showed mastoiditis and an operation revealed extensive involvement of the mastoid cells. Following mastoidectomy, there was a relief of symptoms. The patient improved and went home after two weeks. His hearing was restored. Ten days later he had pain throughout the distribution of the fifth nerve, calling for morphine. He had no other symptoms except this pain. Forty-eight hours before his death, he developed a high blood count, hard chills, fever, and delirum. A postmortem showed pachymeningitis.

Dr. R. H. T. Mann, Texarkana: I would like to report a case of septicemia beginning in the jaw and antrum and extending to the brain. I saw this man about a week or ten days after the infection occurred. He had a brain involvement, with some paralysis on the left side, from which he eventually died. However, before his death occurred, and when it was realized both by the consultants and myself that no ordinary treatment would be of any avail, we gave him an injection of 30 c.c. of 1 per cent mercurochrome, intravenously. His temperature dropped to normal and his condition improved very much. However, he began to grow worse again, and we gave him 25 c.c. of mercurochrome, which also seemed to have a good effect. The mercurochrome seemed to control the temperature and cause an improvement

in the action of his heart and in his respiration, but he later died from an involvement of the brain.

Dr. Louis Daily, Houston: The brain abscesses that chiefly concern the otologist are the cerebellar and the temporal. There are usually no choked disks in a temporal brain abscess. There is no fever in brain abscess; usually, if the fever comes, it is due to something else. In cerebellar abscesses you have nystagmus, and the Barany tests may help. A drum membrane may look normal, but you must look carefully at Shrapnell's membrane. If there is a little scab on Shrapnell's membrane, remove it and you may find a small perforation which would lead you to suspect temporal lobe abscess. Amnesic aphasia occurs in temporal lobe abscess. In a case that I operated on in Berlin, that of a man with severe headaches, the neurologist had made a diagnosis of cerebellar abscess because of the slow pulse. I explored the cerebellum without result and found the abscess in the temporal lobe, where I first thought it was, because of the absence of choked disk, etc. The patient got well.

Dr. Ott (closing): As I recall the cases that I have seen, choked disks are not quite so frequent in temporal lobe abscesses as in abscesses located elsewhere, but they do occur. In the cerebellar lobe, if the aqueduct is obstructed, choked disks develop earlier. Choked disks also occur in frontal lobe abscesses, but only after the abscess has been present for some time and then only in about one-half of the cases. The Barany tests are often not available because the patient is too sick. I do not feel that these tests are of as much value as the clinical signs in the localization of the tumors. As to aphasias, their presence is always a good localizing sign. I did not enter into a discussion of the treatment of sinus thrombosis, because I felt that this condition belongs more to the otologist than to the neurological surgeon.

LIGATURE OF THE COMMON ILIAC ARTERY.*

BY

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Ligature of the common iliac artery is a comparatively rare operation. On an average, about one case yearly has been reported since the operation was first performed by William Gibson, of Baltimore, in the year 1812. Up to 1912, the reported cases are accessible in three articles, one by Stephen Smith, published in the *American Journal of Medical Sciences,* July, 1860; the second by Kümmel in the *Archives fur Klinische Chirugie,* 1884, and the third by Halsted, published in full in the Johns Hopkins Hospital Bulletin of July, 1912, and in an abridged form in the Annals of Surgery and the Transactions of the American Surgical Association for the same year.

Up to 1912, Halsted was able to find references to 92 cases of ligature of the common iliac artery, of which 32 were collected by Stephen Smith, 30 by Kümmel and 30 by himself. To these I have been able to add 5 published and 3 unpublished cases, of which 2 are from the clinic of the John Sealy Hospital and one from the Mayo clinic, an abstract of which was kindly sent to me by Dr. John Pemberton.

The infrequency of this operation probably depends upon two factors, namely: (1) the rarity of aneurysms arising from the common iliac, and (2) the fact that direct wounds of the vessel are usually fatal within a few minutes from rapid loss of blood. Aneurysms occupying the common iliac trunk usually encroach on the point of origin of the artery from the aorta to such an extent as to render ligature impossible or very dangerous. Most surgeons have preferred to place a ligature around the abdominal aorta rather than run the risk of tying a dilated and diseased artery in close proximity to the aneurysmal sac. In Case No. 2 of our series, the difficulties were so great that we only succeeded in placing a ligature on the artery by dint of great perseverance and at considerable risk of penetrating the aneurysmal sac.

INDICATIONS FOR THE OPERATION.

Stephen Smith divided the indications for ligature of the common iliac artery into four groups as follows: (1) For the arrest of hemorrhage; (2) for the cure of aneurysms; (3) for the cure of pulsating tumors other than aneurysms (malignant growths), and (4) for the arrest of hemorrhage during operations for the removal of growths.

Group 1.—Although the first ligature of the common iliac was performed by William Gibson to arrest hemorrhage, surgeons in civil practice seldom see cases in which the operation can be attempted with even a remote chance of success. Wounds of the artery are usually attended by such profuse hemorrhage that death follows in a few minutes long before surgical treatment is available. Smith reports 11 cases in this group, of which 10 died, 9 from hemorrhage (primary 5; secondary 4), and 1 from peritonitis. In Halsted's list there were no cases of ligature for direct wounds of this vessel. There were 7 cases of hemorrhage from the common iliac trunk and its branches and from the femoral and profunda arteries, resulting from varying conditions, such as free hemorrhage during the removal of pelvic tumors, diffuse aneurysms, erosion of an artery by an ulcerating bubo, and secondary hemorrhage after a wound of the profunda femoris vessels. In these 7 cases there were 5 deaths.

Group 2.—This is the most important, because an overwhelming majority of cases fall in it. The surgical history of ligature of the common iliac artery is indissolubly linked

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with that of aneurysms of the external iliac and hypogastric branches. In Smith's series of 32 cases, there were 15 ligatures for the cure of aneurysms; in Halsted's 30 cases, there were 23.

Group 3.—At the present time surgeons would hesitate to countenance the operation for such an indication. Sufficient proof is now available to show that ligature of the main artery distributed to a tumor has only a transient effect and cannot be considered seriously as a curative measure.

Group 4.—At the present time other alternatives of a less serious nature would be employed. Either the hypogastric artery would be ligatured, as is the custom in extensive removal of uterine cancers, or the common iliac trunk would be obliterated temporarily, by compression with arterial clamps.

ANATOMY.

The common iliac arteries are the terminal branches of the abdominal aorta which divides into two trunks opposite the middle of the body of the fourth lumbar vertebra, a little to the left of the middle line. Each artery passes from this point downwards and laterally to the level of the lumbosacral articulation where it divides into its two terminal branches, the hypogastric and the external iliac. The right artery (2 inches) is a little longer than the left (1 3/4 inches). On the surface of the abdomen, a line drawn from a point a little below and to the left of the umbilicus to another point over the inguinal ligament, midway between the anterior superior spine of the ilium and the symphysis pubis, will indicate the course of the common and the external iliac arteries. The upper third will correspond to the common; the lower third to the external iliac.

Both right and left common iliac arteries lie under the peritoneum and are covered by coils of the small intestine. Communicating cords of the sympathetic between the aorta and hypogastric plexuses also lie in front of the vessels. The superior hemorrhoidal vessels cross over the front of the left artery. Each artery is crossed obliquely near its bifurcation by the ureter of the same side. The left artery rests on the bodies of the fourth and fifth lumbar vertebrae and the intervertebral fibro-cartilages, the sympathetic trunk and the psoas major muscle. The right artery is separated from these structures, except at its distal end where it lies directly on the psoas major, by the left common iliac vein, the commencement of the vena cava and the right common iliac vein. The left artery lies on the medial border of the psoas with its companion vein on its medial side. The relations of the right artery to its vein are peculiar; distally, the vein lies slightly internal and posterior to the artery, but as the vein ascends, it lies directly behind the middle of the artery and joins the left vein to form the vena cava inferior, behind the proximal end of the artery.

Both arteries are easily accessible by the intraperitoneal route. The small intestines are lifted out of the pelvis and retracted upwards, and the sigmoid flexure and pelvic colon are retracted to the left. An incision made through the peritoneal lining of the posterior body wall, below the line of the caecum and ileum, is carried across to the left side as far as the line of the superior hemorrhoidal vessels. Through this opening both common iliac arteries can be exposed by stripping the peritoneum upwards and laterally. Care must be taken of the ureters on both sides. On the left side the superior hemorrhoidal vessels occupy a position medial to that of the left ureter and they must be retracted laterally. The arteries are also accessible by the retroperitoneal route which was employed almost exclusively by the older surgeons. If the abdominal wall is divided down to the retroperitoneal tissue by an incision beginning at a point about 1½ inches above and internal to the anterior superior iliac spine and extending upwards almost to the tip of the twelfth rib, the peritoneum can be peeled medially from the posterior body wall far enough to expose the common iliac artery on either side and in a thin patient, even to expose the abdominal aorta on the left side. The transperitoneal incision is to be preferred because it enables the operator to determine the exact position and character of the pulsating tumor and gives easier access to the arteries. Furthermore, if ligature of the arteries is impossible, it enables him to ligature the abdominal aorta with greater ease and safety.

In order to understand the path by which blood reaches the arteries of the lower extremity after ligature of the common iliac artery it is necessary to review the anatomy of its main branches, the hypogastric and external iliac.

In the foetus, the hypogastric represents the primitive artery of the hind limb, whereas the external iliac and femoral are later developments. The original artery of the leg is the inferior gluteal which continues downwards as the popliteal and peroneal arteries. With the later development of the external iliac and femoral trunks, the distal part of the inferior gluteal undergoes atrophy.

The main trunk of the hypogastric artery is about 1½ inches in length. It arises from

the parent trunk at the level of the lumbosacral articulation, and passes into the pelvis minor, where it ends opposite the upper border of the sciatic notch by dividing into two main trunks, an anterior and a posterior. From the posterior trunk three branches usually arise, all of which are distributed to the parietes, the iliolumbar, the lateral sacral, and the superior gluteal. From the anterior trunk both parietal and visceral branches arise; the parietal branches are the obturator, inferior gluteal and internal pudendal; the visceral branches are the umbilical (superior vesical), the inferior vesical, the middle hemorrhoidal and the uterine. Of these parietal branches the iliolumbar and the lateral sacral are by far the most important, because they anastomose freely with branches arising from the abdominal aorta, the former communicating freely with the lower aortic lumbar arteries and the latter with the medial sacral artery. After ligature of the common iliac trunk, arterial blood passes by means of these anastomoses into the hypogastric artery, and thence distally into the lower limb by one or both of the following paths: (1) Up stream along the hypogastric and around the corner into the external iliac and so down into the femoral; or, (2) down stream along the inferior gluteal (sciatic), through the crucial anastomosis, and along the chain of perforating arteries into the lower end of the femoral or the popliteal.

The volume of blood passing along each of these channels will depend upon the peripheral resistance. In cases of aneurysm of the external iliac artery, ligature of the common iliac is frequently followed by consolidation of the aneurysm. When this occurs, all the blood which flows into the main hypogastric trunk through the anastomotic channels between the aortic lumbar arteries and median sacral artery above and the iliolumbar and lateral sacral arteries below will be diverted distally along the inferior gluteal. If, on the other hand, the aneurysm does not consolidate, most of the blood will flow up stream along the hypogastric into the external iliac and thence down the femoral. Very little will flow down the inferior gluteal.

The role of the obturator artery in these anastomoses must not be overlooked. In a case reported by Salomon, a dissection of the body ten months after ligature of the common iliac showed that the obturator arteries were greatly enlarged.

There is no reason to believe that the visceral arteries (except, perhaps, the uterine) play an important part in the anastomosis. They are so small that the current of blood can hardly be expected to reach the main hypogastric trunk with sufficient pressure to overcome much resistance. In one of my cases (Case No. 2), ligature of the right hypogastric artery failed to influence pulsation in an aneurysm on the left side, which had reappeared after ligature of the left common iliac artery.

The external iliac artery gives off two parietal branches at its distal end, just above the inguinal ligament. One, the inferior epigastric, courses upwards and medially behind the rectus abdominis muscle and in its sheath, and anastomoses with the superior epigastric above. The other, the deep circumflex iliac, courses laterally just above the lower border of the inguinal ligament, pierces the transversus abdominis a little beyond the anterior superior spine and courses around the iliac crest between the transversus abdominis and the internal oblique, and ends by anastomosing with the branches of the iliolumbar artery. Both these branches are of great value as anastomotic channels. They are of the utmost importance after ligature of the external iliac artery because they take most of the strain from the crucial anastomosis. They are scarcely of less importance after ligature of the common iliac. Therefore, care should be taken to plan the abdominal incision for ligature of the iliac arteries so that these anastomoses may escape injury. For this reason, the rectus abdominis incision is not advisable and a median incision is preferable. If the retroperitoneal operation is contemplated, the incision must not encroach medially on the line of the inferior epigastric artery.

From the above description it is evident that under normal anatomical conditions ligature of the common iliac artery is a reasonably safe operation because the collateral channels are quite able to carry enough blood around the obstruction to keep the limb alive and in good condition. The dangers of gangrene are not great; they have been variously estimated by different writers from 15.6 per cent (Stephen Smith) to 33.3 per cent (Matas). Halsted takes exception to these figures as being much too high. He believes, after a careful analysis of the cases in which gangrene followed ligature, that it was mainly dependent on the condition present and was not produced solely by the ligature. He places the percentage at 3.3. In analyzing case reports, one finds that there is much greater danger of gangrene when the aneurysm occupies the path of the collateral channels than when it is situated on the main iliac trunks. Thus gluteal aneurysms and iliofemoral aneurysms which extend distally as far as the origin of the profunda femoris,

are much more dangerous than those of the external iliac or of the hypogastric proximal to its branches, and even those of the common iliac itself.

Halstead says:

"In a general way, the larger the artery or the nearer it is to the heart, the less the impairment of circulation attending its ligation. The subclavian, for example, may be tied quite without fear of gangrene, whereas after ligation of the axillary artery the circulation of the upper extremity is somewhat endangered, but not so much as from ligation of the brachial.

"Peripheral gangrene has not been observed in consequence of ligation of the aorta. It may occur after ligation of the common iliac, has occurred much more frequently after ligation of the external iliac and has followed ligation of the popliteal in a considerable percentage of cases."

He quotes Kümmel, who writes:

"It seems, naturally within certain limits, that the nearer the ligated vessel is to the central organ of the circulation, the easier it is for the collateral routes to develop by means of the increased pressure from the heart. Astonishing as it may seem, it nevertheless appears to be a fact, as already stated, that the ligation of the common iliac less endangers the vitality of the lower extremity, and makes easier the establishment of the collateral circulation than does ligation of a peripheral vessel, for example, the external iliac. I therefore do not hesitate, in the case of aneursm of the external iliac and high femoral arteries, to express a preference for the ligation of the common iliac, even when the ligation of the external iliac is possible; for thereby the definite cure of the aneurysm seems to be more certain of accomplishment and the safety of the limb less endangered."

I cannot subscribe unreservedly to all of the above statements. It is more probable that the situation of the aneurysm has more to do with the incidence of gangrene than the site of the ligature. It is difficult for us to believe that ligature of the external iliac artery is not a safer operation for iliofemoral aneurysms than ligature of the common iliac. The former operation leaves the hypogastric free to transmit blood directly into its peripheral branches by way of the crucial anastomosis, whereas the ligature of the common iliac forces the blood to pass through two sets of anastomoses before it reaches the femoral or popliteal trunks, viz: (1) A proximal set between the aortic lumbar and medial sacral branches above, and the iliolumbar and lateral sacral below; and (2) a distal set between the superior and inferior gluteal arteries above and the branches of the profunda femoris below (crucial). By the time the blood reaches the distal set (crucial anastomosis) the pressure must be very low, indeed. The strain on these posterior anastomoses is not dangerous as long as the anterior anastomoses between the inferior epigastric and deep circumflex iliac and the superior epigastric and aortic lumbar arteries are not interfered with. But if the iliofemoral aneurysm consolidates as the result of ligature, the inferior epigastric and deep circumflex iliac arteries are often obliterated and all the strain is thrown on the crucial anastomosis with occasional disastrous results.

Furthermore, I cannot accept the statement that ligature of the common iliac is preferable to ligature of the hypogastric for the cure of gluteal aneurysms. We believe that the hypogastric trunk should be tied whenever it is accessible, and free from disease. It is one and a half inches long and, if care is used, there is no danger of injuring its companion vein or any of its parietal branches. After ligature the flow of blood into the lower limb down the external iliac is not interfered with and there is no danger of gangrene. If conditions are favorable, we can even expose the upper parietal trunks, viz., the iliolumbar and lateral sacral, and by preventing any blood reaching the gluteal arteries from above insure the consolidation of the aneurysm. If, on the other hand, the common iliac trunk is ligated, the circulation of the leg is much more embarrassed. Owing to the obstruction caused by the gluteal aneurysm lying right in the pathway of the crucial anastomosis, the chief burden of carrying blood into the thigh will fall on the inferior epigastric and deep circumflex iliac through their anastomosis with superior epigastric and the aortic lumbar arteries above. A little blood will reach the hypogastric artery by way of the anastomoses between the iliolumbar and lateral sacral arteries below with the aortic lumbar and the medial sacral arteries above, and this will pass around the corner up stream into the external iliac. Still, both of these streams are mere trickles compared to the full flow that would pass along the external iliac artery unhindered, after ligature of the hypogastric artery alone. We are convinced that the hypogastric artery should be ligatured for aneurysms of the gluteals wherever possible, but that if the artery is diseased, a ligature should be placed on the common iliac. After ligature of the common iliac trunk it is unwise to attack the gluteal aneurysm directly, because the dissection will invariably destroy important and essential collateral channels, and will probably precipitate gangrene.

I have found histories of two cases of ligature of the common iliac artery in the records of the Surgical Clinic of the John Sealy Hospital; both were performed for aneurysms which occupied the distal portion of the common iliac trunk, its bifurcation and a large part of the external iliac artery. In both cases, recurrent pulsation appeared

a short time after the ligature, presumably due to the rapid opening of the anastomotic channels connected with the branches of the hypogastric of the same side.

CASE REPORTS.

Case No. 1.—L. G. T., male, a negro, aged 54, was admitted to the John Sealy Hospital, August 4, 1915, suffering with an enormous pulsating tumor in the left iliac fossa, which was diagnosed as a spontaneous aneurysm of the common and external iliac arteries. It reached upwards within three inches of the navel and downwards almost as far as the inguinal ligament. The pulsation was vigorous and a loud bruit was heard over the tumor. The femoral pulse was absent. Over the course of the femoral artery, about an inch below the inguinal ligament, was an old depressed scar which had been produced by a bullet, about twenty years previously. There was no sign of pulsation in any of the arteries of the thigh or leg, but the circulation was fair. Both thigh and leg were edematous and the seat of pain. It is probable that the femoral artery had been severed by the bullet. We have no means of knowing what had happened to the femoral vein; at all events the collateral circulation, both arterial and venous, seemed to have been restored perfectly.

About twenty years previously he had contracted a sore on his penis, followed by a bubo in his left groin, and five years later he had contracted gonorrhea. The Wassermann reaction was negative.

On August 16, 1915, the abdominal cavity was opened by a midline incision under general anesthesia. The aneurysmal sac filled up the left iliac fossa, overlapped the brim of the pelvis and projected a considerable distance downwards into the pelvis minor. The upper end of the sac projected upwards so far that we were unable to isolate the left common iliac at the first attempt. The lower part of the abdominal aorta was cleaned and a piece of umbilical tape was carried around it. Before tying the ligature another attempt was made to isolate the common iliac artery, which was successful. About half an inch of the vessel which seemed sound enough to hold a ligature was cleaned, and it was tied with umbilical tape. The abdominal aorta was not tied. Pulsation in the aneurysmal sac stopped at once and the patient made an excellent recovery from the operation. Several days after the operation the sac began to pulsate feebly, and at the end of two weeks the pulsation was as vigorous as before the operation.

I found that by dipping my fingers deeply under the lower and inner edge of the sac and pressing firmly that pulsation ceased entirely. Although certain that the femoral vessels had been destroyed by the bullet many years before, I thought that perhaps an unusually large aberrant obturator artery was feeding the sac with blood. With this possibility in view, I operated on the patient again under local anesthesia. An incision was made along the line of the femoral artery and the dissection carried deeply to the psoas muscle, but no signs of either femoral artery or vein were found. A careful search was made under the lower pole of the aneurysmal sac for the entering artery, which ended in failure. To avoid inadvertently opening the sac, the operation was abandoned. The patient refused to allow me to ligature the abdominal aorta and he was discharged from the hospital on October 8, 1915.

He was readmitted on March 7, 1916. At this time the sac was extremely large, filling the whole lower abdomen and extending across to the right iliac fossa. The upper pole extended above the umbilicus and both pulsation and bruit were evident over the whole surface of the sac. The patient's general condition was fair. He suffered from intense pain in the left leg and thigh, which were considerably edematous. He refused to allow any operation to be performed after we had discussed candidly with him the dangers of ligature of the abdominal aorta. He was discharged on March 26, and I have since heard that he lived about six months.

It was our belief at the time (1916) that the arterial blood which kept the aneurysm alive and pulsating, reached the sac through the anastomoses between the visceral branches of the hypogastrics of right and left sides, aided perhaps by those between the medial sacral and the lateral of the same side. If the pelvis had not been completely filled by the aneurysmal sac, I would have ligated the hypogastric of the sound side in the hope of cutting off these channels. Such an operation would probably have failed, because it is almost certain that the visceral anastomoses between the right and left hypogastrics are very feeble even in the female (through the uterines), and that there are vigorous homolateral anastomoses between the upper parietal branches of the hypogastric and the lumbar branches of the abdominal aorta.

Case No. 2.—C. F., a colored man, aged 27, was admitted to the John Sealy Hospital in June, 1922, suffering from bilateral inguinal adenitis of gonorrheal origin. He had a clear history of syphilitic infection and the blood Wassermann was 2 plus positive. The suppurating glands were removed from both groins. A few days afterwards he complained of severe pain in the left groin and a pulsating swelling along the line of the external iliac artery was found, which proved to be an aneurysm.

On September 21, through a transperitoneal incision through the left rectus muscle, the left common iliac artery was tied by my colleague, Dr. A. O. Singleton. Umbilical tape was used as the ligature. The left inferior epigastric artery was divided and tied while making the abdominal incision. The aneurysmal sac occupied the whole length of the external iliac artery and overlapped the bifurcation of the common trunk at its upper end. The patient was discharged at the end of a month apparently cured; convalescence had been ideal. The circulation of the thigh and leg was good and no pulsation could be detected in the sac. He was readmitted on March 19, 1923, with a return of the pulsation in the aneurysm. The sac was large and extended from the inguinal ligament almost as high as the umbilicus. It filled the whole of the left iliac fossa and extended to the right as far as the midline. Expansile pulsation was present but was less vigorous than before the operation. The bruit was well marked. The patient suffered from considerable pain referred mainly to the terminal branches of the femoral nerve in the thigh.

On March 28, the right internal iliac artery was tied with braided silk. The abdominal cavity was opened by a median incision and the aneurysmal sac and the left iliac arteries examined carefully. The sac had increased in size since the last operation, and now occupied the lower third of the common and all of the external iliac trunks. Proximal to the upper end of the sac, the common iliac trunk seemed to be obliterated. No pulsation was present over the line of the artery and we could find no trace of the ligature that had been placed on it six months before. The left internal iliac artery could not be found; it appeared to be covered by the upper end of the sac. The ureter was dissected off the lateral wall of the pelvis and the side of the aneurysmal sac, and an unsuccessful search was made for the internal iliac artery and its branches. As a

last resort, in the hope of cutting off the anastomosis between the branches of the right and left internal iliac vessels, the right internal iliac artery was ligatured. Compression of the right internal iliac appeared to stop the pulsation, and after the ligature was tied it was imperceptible. A few days after the operation the pulsation and bruit returned, showing that we had failed to find the collateral arterial branch which was bringing blood into the sac. Thinking that it might come from below through the branches of the medial and lateral circumflex arteries, via the profunda femoris and femoral, we applied digital pressure on the femoral trunk just below the inguinal ligament. The test was unsatisfactory, because, on account of the scar tissue left by the operation on the suppurative bubo and the absence of pulsation in the femoral, it was impossible to tell if the pressure had been applied correctly. It seemed more probable that blood was flowing into the sac through some of the branches of the internal iliac of the same side or perhaps through an aberrant obturator artery.

Believing that distal ligature of the femoral artery would stop the circulation through the sac, this operation was performed on April 16, 1923. It was necessary to expose the artery thoroughly in order to be sure of placing the ligature above the origin of the profunda femoris. (To have shut off the profunda from the main femoral trunk would probably have been followed by gangrene of the leg, because it serves as one of the main collateral channels through which arterial blood reaches the thigh and leg after ligature of the common or external iliac or common femoral trunks.) The profunda arose at an unusually high level, just below the inguinal ligament. This ligament was divided and the femoral artery followed upwards until the lower end of the aneurysmal sac appeared. A silk ligature was placed on the artery about an inch below the sac, but when it was tied, it cut its way through the walls of the vessel as if they had been made of cheese and the proximal end of the artery began to bleed at once. It was seized with a pair of artery forceps, but the walls were so soft that the forceps would not hold, and finally the nose of the artery forceps slipped into the aneurysmal sac, when a furious gush of arterial blood occurred. The opening was plugged with gauze while we held an anxious consultation over the case.

We concluded that the old operation (Antyllus-Matas) offered the only good chance of success. It was necessary, however, to get control of the proximal circulation. Since the common iliac had already been tied there was nothing left but the abdominal aorta, which was accordingly exposed and a ligature passed around it. The ligature was not tied, but served as a loop against which the artery was compressed by the finger of an assistant. To our consternation, compression of the abdominal aorta failed to stop pulsation in the sac. It became necessary, therefore, to open the aneurysmal sac without control of the proximal circulation, and trust to our dexterity and luck to reach and control the bleeding vessels. The sac was opened in front by a long incision which divided the abdominal muscles covering it. Furious arterial bleeding came from the upper and hinder part of the sac which was funnel-shaped. The bleeding stopped when the funnel was blocked with the tip of the forefinger, or when it was tightly packed with gauze. After trying in vain to get a view of the interior of the sac for the purpose of stitching up or clamping the bleeding aperture, we succeeded with some difficulty in carrying a strong ligature around the neck of the funnel by means of a curved needle which was passed from the interior of the sac guided by the left forefinger which served as a temporary plug. The ligature was tightened as the forefinger was withdrawn, and knotted tightly. Happily, bleeding ceased at once. The rest of the sac wall was inspected, but no other arterial openings were found. The cavity of the sac was then packed lightly with iodoform gauze, the ligature withdrawn from around the abdominal aorta and the abdomen closed.

The patient made an uninterrupted recovery. The circulation in the leg was never embarrassed at any period, and he left the hospital on May 27, with a perfect leg. During convalescence he complained of pain in his left upper chest, and an *x*-ray examination showed a small aneurysm arising from the left side of the transverse portion of the thoracic aorta.

The most puzzling feature of the case was the failure to control circulation through the aneurysmal sac by compression of the abdominal aorta. This can only be explained by the opening up of the anastomotic channels between the lumbar branches and the parietal branches of the abdominal aorta and the parietal branches of the internal iliac, as a result of the ligature of the common iliac seven months before. It is more than probable that if the abdominal aorta had been exposed and compressed at a higher level, *i. e.*, just below the renal arteries, that a bloodless field would have been secured.

Although the technique of the intrasaccular obliteration was somewhat atypical in this particular case, I believe that the operation can be considered as one of intrasaccular suture (Matas).

In a careful search through the literature of aneurysms of the iliac arteries, I have been unable to find a similar case.

Case No. 3.[1]—A man, aged 48, complained of pain in the right groin and leg. Symptoms were first noticed seven years previously and appeared the day after he was kicked in the groin, as a small throbbing tumor (hematoma). The mass increased in size gradually and the pain became more severe until he was unable to follow his employment. For the past previous years he had used crutches constantly. Examination showed a large bulging tumor occupying the right lower quadrant of the abdomen. It reached vertically from the umbilicus to an inch below the inguinal ligament, and laterally from the crest of the ilium to the midline, and showed all the physical signs of an aneurysm.

Operation by the transperitoneal route showed a large pulsating mass occupying the right external iliac artery. The common iliac artery was tied with two stout silk ligatures placed about three quarters of an inch apart and pulsation in the aneurysm ceased immediately. The common iliac artery was not divided. The patient made a very satisfactory recovery. Two years afterwards, examination showed entire absence of the aneurysm, no pulsation in the femoral, and very slight pulsation in the posterior tibial and dorsalis pedis. There was slight capillary congestion of the affected leg, but no edema, and almost complete restoration of function.

Case No. 4.[2]—A male, aged 22, was wounded by a shot through the pelvis. The right thigh was flexed on the abdomen. A slight pulsation was perceptible in the lower part of the right femoral artery; there was a distinct resistant swelling above the inguinal ligament, but no pulsation. In Scarpa's triangle there was a pulsating swelling the size of an apple and very great pain in the groin and upper part of the thigh.

1. Fee, F.: "Ligation of the Common Iliac Artery for Ileo-femoral Aneurysms, with Report of a Personal Case," Lancet Clinic, Cincinnati, 1915, Vol cxiii, pp. 594-599.

2. Orth, O.: "Aneurysma des Arteria Iliaca und Vena Communis Dextra," Arch. für Klin. Chir., 1915, Vol cvi, S. 823.

An incision was made along the line of the external iliac artery and the inferior epigastric artery and vein ligated. The external iliac artery and vein were exposed, around which a traction thread was passed but not tied. Momberg's hemostasis was used to a limited extent and the aneurysmal sac was incised and the clot removed. In spite of considerable bleeding, the common iliac artery and vein were exposed and the wounds in their walls isolated. Both artery and vein were ligated proximal and distal to the injury. The patient recovered slowly; there was no gangrene, but he suffered considerably from cramps in the muscles of the leg and thigh. He died four months later of pulmonary tuberculosis.

Case No. 5.[3]—A man, aged 48, had had his left thigh amputated 14 years previously for an aneurysm resulting from a gunshot wound received 28 years ago. There was a pulsating tumor along the line of the femoral artery, just below Poupart's ligament. The systolic pressure was 145, diastolic 75. The urine was normal and the Wassermann negative. The diagnosis was made of traumatic aneurysm of the left femoral artery with extension along the external iliac as a fusiform aneurysm.

A ligature of the left common iliac artery a short distance from the aorta and a simultaneous ligature of the external iliac was done on September 12, 1919. Both common and external iliac trunks were greatly distended. Convalescence was uneventful and the patient was able to wear an artificial limb on the stump, without trouble most of the time, for four years after the operation. In August, 1923, he was suddenly seized with sharp pain in the stump, which was followed by swelling and soreness. The *x*-ray showed slight roughening of the bone and a dense calcified tumor in the soft tissues, which was interpreted as a calcification of the aneurysmal sac. On September 22, the tumor was explored and a large sacculated aneurysm situated on the femoral artery below the origin of the profunda femoris was excised. The femoral artery was exposed above and below the origin of the profunda femoris and doubly ligated above and below this branch. The artery was hugely enlarged and measured 3½ centimeters in diameter. The excised aneurysm was filled with an organized laminated clot. A few calcareous plaques were found on the inner wall of the aneurysmal sac.

Case No. 6.[4]—A middle aged woman, first noticed a painless swelling the size of a marble, in the right groin six years before admission to the hospital. It increased in size gradually, became painful and began to pulsate. Examination showed an expansile tumor, apparently an aneurysm, along the line of the external iliac and upper part of the femoral arteries. The thigh and leg were quite edematous.

Through a transperitoneal incision, the right common iliac artery which was greatly dilated, was ligated with braided silk. Immediate cessation of pulsation in the aneurysm resulted, but pulsation, however, returned before the patient left the operating table. Pulsation was still present, though not so vigorous as before the operation, when the patient was discharged on the fourteenth day.

Case No. 7.[5]—A woman, 44 years of age, complained of a swelling in the right groin, which had been present for six years. On examination, an aneurysm was found occupying the right external iliac artery and the upper portion of the femoral. The pulsating tumor occupied the whole length of the femoral triangle and was producing great pressure on the veins and nerves, causing edema and neuralgia.

Through a transperitoneal incision a ligature was placed on the right common iliac artery in the middle of its length. The pulsation ceased at once, but reappeared slightly before the patient left the operating table. During convalescence, pulsation became more marked but not to the preoperative intensity. The patient was seen 13 months afterwards and pulsation was present, but the tumor had not increased materially in size. Pain was absent and the edema had disappeared.

Case No. 8.[6]—Male, 60 years of age, with a history of chronic fibroid pulmonary tuberculosis had four years previously suffered from an abdominal crisis of doubtful nature. Two months later the left leg began to swell without fever or pain, but this disappeared spontaneously. He suffered from several recurrent attacks associated with swelling of both legs and undue frequency of urination.

On examination, the lower abdominal cavity was found filled with a huge pulsating expansile tumor, and a diagnosis of aneurysm of the left iliac arteries was made.

Through an extraperitoneal exposure, the left iliac vessels were found unconnected with the aneurysmal sac. The peritoneum was opened and the tumor palpated. It filled the whole pelvis and extended upwards towards the right lumbar region, where a large artery was felt, compression of which stopped pulsation of the whole mass. Through a second retro-peritoneal incision on the right side, the pulsating tumor was exposed and followed upwards as far as the lower pole of the right kidney where the large arterial pedicle could be palpated. Little by little the index finger was hooked around it and two loops of stout catgut passed around the artery. A musculo-tendinous free graft was cut from the external oblique muscle, drawn around the artery, and its free end stitched with catgut so as to form a tight sling around the vessel. It was fastened tight enough to stop pulsation and to produce a thrill in the sac, which had not been present previously. The pulsation reappeared soon after the patient left the operating table, but it disappeared gradually from all the arteries of the right leg, except the upper part of the femoral. There was a complete absence of thrill, bruit, or murmur in the pulsating tumor. At the time of writing, the tumor had steadily decreased in size. Pulsation was present in the right femoral as low as the origin of the profunda. Below this level there was entire absence of pulsation in any of the arteries of the leg, but both the legs were still edematous.

ABSTRACT OF DISCUSSION.

Dr. W. D. Haggard, Nashville, Tenn.: I always listen with great interest to Dr. Thompson on vascular surgery. Cases of ligature of the common iliac artery are rare. My associate, Dr. Floyd, had a case in which he ligated the external iliac just at its origin from the common iliac. This case was that of a male, 30 years of age, who had been shot two months previously and the bullet had cut both the external iliac artery and vein at their lower third. This patient had an arterio-venous aneurysm about the size of a man's fist in the right pelvic region. The mass also extended beneath Poupart's ligament and even slightly below it. The artery and vein were both ligated just at their points of origin from the

3. Pemberton, John de J. (Mayo Clinic): Private communication hitherto unpublished, 1919.

4. Priest: "A Case of Ligation of the Common Iliac Artery for Femoral Aneurysm," Jour. Mo. Med. Assn., St. Louis, 1921, Vol. xviii, p. 463.

5. Brooks, B.: "Aneurysm of the External Iliac and Femoral Arteries," Surgical Clinics of North America, Phila., 1922, pp. 1657-1673.

6. Eloesser, L.: "Aneurysm of Common Iliac Artery; Gradual Occlusion by Ligation with Free Graft of Muscle," Sur. Clin. of N. A., Phila., 1923, Vol. iii, pp. 681-697.

common iliacs, and also ligated below the pulsating tumor mass, which at this point consisted of the upper portion of the common femoral artery and vein. Owing to the size of the mass and its being overlain by Poupart's ligament, no effort was made to remove it. The patient made an uneventful recovery, and when seen a year later was able to perform his usual farm labors.

I think that the femoral vein should also be ligated in these cases, and I agree with Dr. Thompson in his statement that in gluteal aneurysm, the internal iliac should be ligated. Some years ago, I had a case of gluteal aneurysm in an elderly woman, which I have previously reported. At the present time she has had no recurrence.

Dr. Thompson (closing): It was a pleasure to have Dr. Haggard here to discuss my paper. I am glad he mentioned simultaneous ligation of the vein and artery. If the arterial collateral circulation is good, it is not necessary to ligate the vein. Unless the proximal circulation can be controlled, the Matas operation is very dangerous, and usually impossible. Many abdominal aneurysms cannot be cured without causing death because important arteries, such as the superior mesenteric or the renal, arise from the sac, and when thrombosis follows consolidation of the aneurysm, gangrene of the viscera results.

COMBINED METHODS OF TREATING MALIGNANCIES.*

BY

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The long campaign for the earlier diagnosis of cancer is now undoubtedly bearing fruit, and many patients are coming to the physician sooner for diagnosis and treatment. Also, a tremendous amount of work has been done recently in the treatment of this condition. Prominent physicians throughout the United States have developed certain weapons against malignancies and are using these methods with results that a few years ago would have been considered impossible. Last year I visited some of the larger clinics, and I found some wonderful work along this line being done by many operators. For instance, in the Skin and Cancer Hospital in New York, surgery was used in practically all cases. These surgeons have developed a wonderful technique and are getting good results. My next visit was to the Memorial Hospital where I found that radium was being used in excess of any other method. I found Schmidt in Chicago and Phayler in Philadelphia strong advocates of the deep *x*-ray. Dr. William L. Clark of Philadelphia was doing brilliant work with his electro-dessication and electro-coagulation.

The surgeons were advocating surgery as the most important method of treating cancer; the *x*-ray men depended upon the *x*-ray, and the radium men were featuring radium. All were getting good results in most cases, but it was my observation that most of these men had become more or less biased and over-enthusiastic concerning one line of attack, and were not using a well-balanced combination of all the weapons at their disposal. I heard surgeons who were not equipped with radium, or did not know how to use it, condemn this valuable agent in the treatment of malignancy, and I also heard radiologists condemn surgery.

All of these agents have their special virtues and when properly chosen by broad-minded surgeons, many cases may be cured that are now being lost. You can no more treat malignancy by surgery, radium, or *x*-ray *alone* than you can practice medicine with only quinine and calomel!

You all recognize the value of each agent in its respective field, and since every case is a law unto itself, its treatment should be carefully planned for the individual case. For instance, a basal-cell carcinoma of the face is a local disease, metastasis occurs

FIG. 1.—Appearance of patient in December, 1923.

rather late, and the progress of the disease is slow. A local excision with the cautery is usually sufficient. Treatment with radium or the *x*-ray has also been successful. A squamous-cell carcinoma, however, shows metastasis in the lymph glands quite early, and in this kind of a case a combination of radium locally and a block dissection of the lymphatic glands of the neck is imperative. The method of cautery dissection so well perfected by Dr. Scott of Temple, is the method of choice. You can also leave a capsule of

*Read before the Fourth District Medical Association at Brownwood, Texas, October 30, 1924.

radium in different areas when you feel that you have not been successful in removing every bit of the gland-bearing area. In addition to this safeguard, a wide radiation of the neck will insure your patient of less chances of return. In handling a cancer of

Fig. 2.—Appearance of same patient in June, 1924.

the breast, it is advisable to insert radium needles into the growth, and then dissect with a thermo-cautery, leaving a capsule along the areas in which you suspect that all the glands may not have been removed.

I do not believe that the surgeon has ever lived, who felt absolutely sure that he had removed every vestige of gland-bearing tissue from the axilla during a breast amputation. There might be cancer cells in a lymphatic vessel, that could only be seen by the microscope and a capsule of radium used at this time would probably devitalize these cells so that they would not be able to revive, or produce metastasis. I have seen several cases of basal-cell carcinoma of the face that had been treated with paste, radium, and x-ray, that were still progressing in spite of these agents. I have been able to control some of these cases by extensive dissection with an electro-cautery, followed by the use of soldering irons. When a surgeon uses all these methods and does not condemn a case as hopeless until he has tried radium, x-ray, surgery, electro-dessication and electro-coagulation, the thermo-cautery, hot irons and proper care in building up the general health of his patient, the mortality will be materially decreased and a greater number of these cases will be permanently cured.

Cancer patients should be given the advantage of every known aid in bringing about a cure. The surgeon must be constantly on the watch to keep from becoming over-enthusiastic concerning one method of attack, but should carefully combine radium, x-ray, surgery, and all other known methods to eradicate malignant disease. In dealing with this condition a timid surgeon is a dangerous surgeon, as nothing but radical procedures will control this difficult disease.

I wish, at this time, to make a preliminary report on transfusion of young blood in the treatment of cancer. All cancer patients are anemic, their resistance is low, and their adrenal glands and blood-forming organs are partially paralyzed from toxins. Transfusions have long been recommended as temporary stimulants for these patients, but at the Robt. B. Green Hospital, San Antonio, we have added a new indication for this procedure. Knowing that cancer is usually a disease of later life, and observing that the relative number of cases rises steadily as age progresses, and seeing so few cases in children, we reasoned that there must be some element in the blood and tissues of a child or young person that inhibits or prevents the occurrence of malignancy. As years pass this

Figs. 3 and 4.—Two views of patient wearing "Artificial Face." Pictures were taken over a year after primary operation.

resistance is steadily lost and the tissues become more susceptible to the development and growth of cancer. With this in mind, we started out to transfuse hopeless cases with as young blood as could be obtained (using children when possible), repeating transfusions two or three times a week, and giving from 100 to 250 c.c. of citrated blood. In this way we build up our patients, give them fresh blood to fight the disease, increase their nutrition, raise their resistance

and improve their general health. This will enable us to get better results from radium, x-ray or surgery. In addition, we hope to flood the system of the cancer patient with that unknown substance found in youth, that inhibits cancerous growth, as well as prevents metastasis. We are trying this treatment out and hope in a few years to be able to report good results.

CASE REPORT.

W. S., aged 61, gave the following history: A pimple started on his cheek about nine years ago, which was cut while shaving. The next morning it was swollen and filled with a yellow serum. It continued to discharge for two or three years, and then a scab began to form around the edges. He went to a doctor who used a light on it, and some kind of a salve or paste. The growth continued to increase in size, and two-and-half years ago, he took a series of superficial x-ray treatments. He also received two injections of some kind in the arm. One year ago, he was treated with radium which apparently checked the rapid spreading. He has suffered a great deal of pain. His father died at 74 years of age of cancer of the stomach, and his mother at 50, cause of death unknown.

This patient was operated on December 17, 1923. We first cut down on and tied the external-carotid artery, which was done in order to check the massive hemorrhage that would be encountered. An electro-cautery was used to dissect the superficial tissues. A necrotic malar bone was removed and also the external wall of the maxillary sinus. The main part of the growth was found to be in the orbit. The tissues were cauterized with large soldering irons down to within a short distance of the orbital tissues. The wound was left open and irrigated with Dakin solution. In February, 1924, there was a slight recurrence in the parotid gland and the parotid was removed in March. When this man came up for the first operation, the tumor was a necrotic, painful mass, necessitating three or four doses of morphine daily, and he was extremely thin. In six months he had gained twenty pounds in weight and was up and around the ward.

The first picture was taken in December, 1923; the next in June, 1924, and the last pictures over a year after the primary operation. These show him wearing a silver plate that was made from a cast of the face and then painted flesh color by an artist. This plate is attached to his glasses so that he can take his "face" off and clean it, when he removes his glasses.

INVESTIGATION OF SCARLET FEVER.

Highest susceptibility to scarlet fever exists from the ages of one to two years, according to the results of tests made with 7,700 normal persons of different ages. Results of these tests are summarized by Dr. Abraham Gingher in the *American Journal of Public Health.* Nearly three-fourths of the children between one and two years of age were susceptible, but only 14.4 per cent of those from 20 years up. Dr. Zingher reports that investigations are being made to discover the results of immunization against scarlet fever and diphtheria in the case of 2,000 children under 6 years of age. Records of these children, who have been immunized, are being kept for comparison with lists of scarlet fever and diphtheria cases developing during the coming year.

MERCUROCHROME IN SURGICAL PRACTICE.*

BY

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The Samuell Clinic,
DALLAS, TEXAS.

In 1910, Ehrlich's "606" was first used upon the human subject. By virtue of this combination of a metal with a dye, the medical mind was turned, temporarily, from specific antibodies to chemiotherapy, and an inviting field was offered to the investigators in research work. In many respects, results obtained with the new drug were disappointing, and few similar remedies have appeared, that deserve attention. However, the possibility of using a dye, or a dye and a metal, that has a special affinity for organisms, are non-debatable and based on scientific observations. As an illustration of the former, attention is called to the use of gentian violet in the treatment of diphtheria carriers.

In the past year, another combination of a metal with a dye has been brought before the medical profession. This drug was fostered by Hugh Young of Johns Hopkins, and he called it "Mercurochrome 220 Soluble." It is a disodium salt of 2:7 dibrom-4-hydroxyl-mercury-fluorescein, and contains from 23 to 24 per cent of mercury. The drug was originally used to attack the gonococcus, but its usage has been considerably broadened until a number of articles are now appearing concerning its diverse usage, but the "crucible of the clinic" must judge of its value.

We have used mercurochrome in acute urethritis, acute vaginitis, acute salpingitis, acute gangrenous appendicitis, acute cholecystitis, acute pyelitis, subacute pyonephrosis with stones, acute and chronic prostatitis, and in acute postpartem infections with bacteremia. In all, we have treated about 50 cases with this drug, and have obtained the best results in cases of acute pyelitis, salpingitis, and bilateral nephrolithiasis with infection.

CASE REPORTS.

Case No. 1.—J. Y., a little girl, aged 5 years, came to the Samuell Clinic, November 21, 1924, with a temperature of 103, slightly anemic, with a pyuria of 4 plus, and an albuminuria of 1 plus. There was a history of chills and fever for three previous days. Examination showed tenderness over the right kidney, but no other positive findings, save slight enlargement and apparently chronically infected tonsils. Five cubic centimeters of mercurochrome 1 per cent were given intravenously. The temperature immediately went to 104° F. and the pulse to 120. On the third day, a second dose of 5 c.c. was given, with a similar reaction. The chart was discontinued

*Read before the North Texas District Medical Association, at Dallas, December 10, 1924.

on November 30, 1924, with a temperature of 98 and a pulse of 100. A daily urinalysis was done; the albumin was absent after the first dosage and pus cells were also decreased; when she left, the urine showed pus cells 1 plus. She was instructed to return within a month.

Case No. 2.—Mrs. A. K., was a Bohemian who talks English poorly, but whose friends gave a history of illness of a week's duration with fever and chills. She went to the hospital with a temperature of 102 and a pulse of 98, on April 28, 1924. The white count was 8,000 with 80 per cent polynuclear leukocytes. The urine showed albumin 1 plus and pus cells 4 plus. An *x*-ray showed an enlarged right kidney, which was tender on palpation. On May 8, 1924, the temperature was 103, the pulse 104, and the white count 12,000, with 92 per cent of polynuclear leukocytes. She was given 20 c.c. of mercurochrome intravenously. Her pulse dropped to 72 and her temperature to 99° F. The urine showed pus cells 1 plus and albumin 2 plus. She was discharged and has not been heard from since, but we have every reason to believe that we would have seen her had she become ill again.

Case No. 3.—Mrs. L., was admitted to the obstetrical ward at St. Paul's Sanitarium, October 31, 1924, and was delivered the same day. On November 6, 1924, the temperature was 104, pulse 98, white blood cells 16,000 with 88 per cent of polynuclear leukocytes, and albumin in the urine 1 plus; pyuria was 1 plus. On November 8, 1924, 20 c.c. of mercurochrome was given in the veins with the regular reaction. The following day, the temperature was normal, but rose again on the third day to 102. A second dose of mercurochrome was given, and we had a typical reaction. On the thirteenth, the chart was normal, but a urinalysis showed pyuria 2 plus. She was discharged from the hospital and has remained without signs or symptoms since.

Next, I shall take up cases of nephrolithiasis with infection, two of which showed multiple stones in both kidneys and pus in the urine; another showed two stones in the left ureter, with pus in the urine.

Case No. 4.—Mrs. M. W., was admitted to St. Paul's Sanitarium, November 13, 1924. There was a history of pain in the left hip-joint and back, and also across the abdomen, for a year. Bladder irritability had been present. On admission, the temperature was 100° F. and the pulse 104. The white blood cells numbered 12,000, with no increase in the polynuclears. The urinalysis showed albumin 1 plus, pus 2 plus, and hyaline casts 1 plus. An *x*-ray showed two suspicious shadows in the course of the left ureter. Cystoscopic examinations revealed two temporary obstructions to the catheter in the left ureter, one near the orifice and one near the pelvis. The pelvis was emptied of 20 c.c. of turbid urine and irrigated with mercurochrome. On November 17, 20 c.c. of mercurochrome was given, the temperature going up to 102° F. and the pulse to 130. It came to normal within several hours and remained so for four days when there was a chill and high temperature. On November 23, a second dose of mercurochrome was given, followed by a reaction, and on November 26, there was a slight flareup. During this time, the kidney had been aspirated and irrigated three times. She was discharged on November 27, with a temperature of 100.4° F. and told to report to the office for further treatment. A few days after leaving the hospital, she passed a small stone which was followed by a large quantity of turbid urine. She is still under observation.

Case No. 5.—J. B. B., was admitted to St. Paul's Sanitarium, January 27, 1924, with a diagnosis of bilateral nephrolithiasis, with a mild infection of the kidney, as shown by pyuria. Two stones were removed from the right kidney, but the temperature rose at once and, on the third day, a severe and almost fatal hemorrhage occurred. A transfusion saved the patient's life. He had a chart typical of a fairly severe infection, and was discharged in a month, with slight temperature and a pyuria of 4 plus. Rest, urinary antiseptics, and forced fluids were prescribed. In the early spring, he became ill with chills and high fever. Cystoscopic examination showed a pyuria from the right kidney of 1 plus, but clouds of pus and mucus coming from the left. There was a slight obstruction to the catheter, just above the left orifice. Three attempts at dilatation, aspiration and irrigation were made with some degree of success, and finally 10 c.c. of mercurochrome were given. The following day he passed a soft stone. Since that time, another stone has passed into the bladder, which was removed in another city. At the present time, the right kidney still shows pyuria 1 plus, while the left kidney shows long, thick ropes of mucus and pus coming from the orifice. It is believed that his continued illness is due to the left kidney, and he has been advised to have it removed.

Case No. 6.—A robust young man walked into the office, wearing a drawn, pained expression. He paced the floor, gripping his right side and bending forward and to the right. There was a history of having passed a stone in the urine. An *x*-ray showed stones in both kidneys and there was hematuria and pyuria 1 plus. He was sent to the Clinic and given 20 c.c. of mercurochrome, with the usual reaction. He was discharged and went home on the third day, free of pain and perfectly comfortable, with instructions to report further trouble. He has not been heard from since.

Case No. 7.—Mrs. T. H., was admitted to the hospital, June 1, 1924, with a temparature of 103° F. and a pulse of 100, white blood cells 12,000, and 90 per cent polynuclear leukocytes. The urine was negative on four examinations, except for a single shower of casts and bile pigments after a chill. A blood culture and Widal were negative, as was the examination for malarial parasites. Her temperature went as high as 105° F. This case was considered to be a bacteremia, but there was some doubt as to the correctness of the diagnosis. Mercurochrome in 7 c.c. doses was given on the second, fourth and sixth days, and again on June 16. The patient was discharged, June 19, much improved but still having a temperature of 99° F. and a pulse of 84.

There have been four cases of acute salpingitis admitted to St. Paul's Sanitarium, with the familiar history of chills, fever, cramps and tenderness in the lower abdomen. All of these patients have left the hospital in the course of two weeks, with normal or practically normal charts, and were not only much improved, but have remained in good health since, as far as we know.

Case No. 8.—Mrs. R. T., was admitted to the hospital on November 19, 1924, with the usual history of cramps and tenderness in the lower abdomen. Fever and chills were present. Upon admission, the temperature was 101° F., the pulse was 120, and the white blood cells numbered 33,000, with polynuclear leukocytes 92 per cent, albumin 1 plus and hyaline and granular casts 1 plus. On this date, 25 c.c. of mercurochrome was given, followed by a reaction. On November 28, the temperature rose moderately, but on the second, third and fourth days, the chart

was practically normal and the patient was discharged.

Case No. 9.—Mrs. B. G., was admitted to St. Paul's Sanitarium, August 12, 1924, with a history of pain in the lower abdomen for three years, soreness and backache. The temperature was 101° F., the pulse 100, white blood cells 25,000, and polynuclear leukocytes 96 per cent. The urine showed pus 2 plus. Mercurochrome in 7 c.c. doses was given on August 13, 15 and 18. She was discharged on August 27, much improved.

Case No. 10.—Miss L. W., was admitted to St. Paul's Sanitarium, September 18, 1924, with a temperature of 101° F., a pulse of 92, and a history of cramps and tenderness. The white blood cells were 16,000 and polynuclear leukocytes 92 per cent. The urine was negative. She was given 10 c.c. of mercurochrome with a perceptible improvement in signs and symptoms. However, the temperature fluctuated and she was operated on September 23, the operation showing acute purulent salpingitis and oophoritis. She was discharged on October 15, in good condition.

From the above cases, and our experience —as short as it is—we feel justified in saying that mercurochrome is a drug of real value in certain cases.

PERNICIOUS ANEMIA—A TREATMENT.*

BY

JOHN GILLETT BURNS, M. D.,
CUERO, TEXAS,
and
CLAUD F. DIXON, M. D.,
ROCHESTER, MINN.

Since the time of Addison—1885—pernicious anemia has puzzled the medical profession. New treatments based on new theories have been brought forth and tried, but none have led to cure, or even permanent improvement in the majority of cases. These failures would seem to justify further speculation. We have ventured to put forward a hypothesis concerning the genesis and course of the disease. This hypothesis is a radical departure from the present conception of pernicious anemia; it is probably incorrect in some respects and incomplete in all. It was first applied in January, 1924. Since then, at least seven cases, including the one described in this paper, have been thus treated.

Analytically, pernicious anemia may be defined as a disease characterized by: (1) A relative diminution of the stromatogenous elements of the red blood cells; (2) degenerative changes in the nervous system; (3) saturation of the organism with pigment; (4) gastro-intestinal symptoms and changes, and (5) an anemia or real diminution of the total quantity of blood.

We believe that the primary factor in pernicious anemia is stasis in the gastro-intestinal tract. We have found in studying our cases both clinically and by means of the *x*-rays that there is ample basis for this belief. Reported cases of strictures in the terminal ileum, paralytic stasis with intestinal parasites, and the constipation of pregnancy, associated with pernicious anemia, are significant indications of the relation of stasis to the disease. Furthermore, the history of constipation alternating with diarrhea is also the history of chronic intestinal stasis.

As a result of this stasis, we assume that two processes occur, which, if carried sufficiently far, reduce the body to the condition known clinically as pernicious anemia. These processes are: (1) The reduction of certain lipoid substances in the metabolism to the point of deficiency, and (2) absorption of toxic substances from the static intestine.

We believe that pernicious anemia is a deficiency disease, and that the deficiency factor is the most important in the genesis of the disease. Thirty per cent of the stroma (dry weight) of the red blood cell is composed of cholesterol and lecithin. The degenerative nervous changes affect chiefly the conduction paths of the spinal cord and brain, which are very rich in the lipoids, particularly cholesterol and lecithin. It seems reasonable to assume that when these elements are deficient, those tissues which depend on their supply of lipoids for their structural maintenance, not to mention functional activity, will suffer.

It is well known that the blood cholesterol is low in pernicious anemia. One of the patients treated showed only 44 milligrams per 100 c.c., the normal being 100-140 milligrams per 100 c.c. Also, it has been observed that when the spleen has been removed from patients suffering from pernicious anemia, there is a temporary increase in the blood cholesterol, which precedes but corresponds with the usual temporary improvement from the anemia.

It is not known positively that cholesterol is synthesized in the body; on the other hand there is evidence pointing to the fact that cholesterol is derived exclusively from the ingested food. There are several possible explanations for the cholesterol shortage in pernicious anemia. The achlorhydria may interfere with the normal digestion and preparation for absorption, of the lipoids. Again, cholesterol may combine with toxic substances, such as unsaturated fatty acids in the abnormal static intestine. Such combinations may render the cholesterol insusceptible of absorption. Another possibility is that, due to the proved action of the bile salts as chologogues, the liver would

*Read before Bexar County Medical Society at San Antonio, February 19, 1925.

be stimulated by the accumulated salts in the static gut to excessive formation of bile which normally contains cholesterol and lecithin. It is not known that cholesterol is ever reabsorbed from the intestinal tract after having been excreted from the liver.

In addition to the deficiency factor, we believe that there is toxic absorption from the static intestine. This is strikingly manifested by the characteristic yellow color of patients suffering from pernicious anemia. Also, it is well known that the urine in pernicious anemia contains urobilin and urobilogen, and that these pigments are indistinguishable from the reduction products of bilirubin in the intestine. These pigments disappear from the urine when the stasis is overcome. In addition to the pigments, other substances, including iron, bile salts, and putrefactive and bacterial products, may be taken up from the static intestine; some of these may be hemolytic.

The presence of excessive quantities of bile pigments in the excretions has long been the basis for the belief that hemolysis is the main factor in pernicious anemia. It is granted that hemolysis may account for the abnormal presence of pigments but it is just as logical to assume that they originate from the abnormal accumulation of pigments in the static intestine. The only absolute criterion of hemolysis is the presence of hemoglobin in the blood plasma and the excretions.

In studying cases of pernicious anemia, one is readily impressed with the importance of the gastro-intestinal symptoms. We have found clinically that constipation, often very obstinate, is commonly one of the first symptoms of the disease. Often it has a definite and rather abrupt onset. It is a pertinent fact that in cases of chronic constipation—stasis (?)—we have frequently found achlorhydria. It is also significant that in cases of chronic intestinal stasis there is diarrhea, which represents the automatic flushing of an intestine overloaded with putrefactive products. Furthermore, atrophy of the intestines of whatever origin, is frequently associated with diarrhea of the intermittent type.

The condition of the bone-marrow in pernicious anemia is not peculiar to the disease but represents exhaustion from any cause.

Having made these explanatory remarks, we are now prepared to trace the course of the disease, hypothetically. We assume that the individual has intestinal stasis, which may manifest itself either gradually or abruptly. However, in view of our belief that the deficiency factor is so important in the production of the disease, we think it most probable that pernicious anemia is the result of prolonged malfunction of the gastro-intestinal tract. The patient develops achlorhydria, or perhaps the hydrochloric acid was deficient before. The cholesterol (cholesterol representing the lipoids) content of the blood and body is gradually diminished, and at a certain point the supply becomes inadequate for the metabolic needs of the body. Naturally, those tissues which are largely composed of cholesterol will eventually suffer and so the red blood cells and the nervous system are the principal tissues affected. It is conceivable that the red blood cells would contain the last available cholesterol.

Putrefaction takes place in the intestine and soluble substances are reabsorbed. The reduced bile pigments are readily absorbed and this absorption is manifested by the characteristic yellow color of pernicious anemia and the presence of urobilin and urobilogen in the excretions. The toxins absorbed may be responsible for the temperature of the disease, the glossitis, and the fatty degenerations in the various viscera. They may cause the occasional hemolysis. The disease may be progressive, but commonly the progressive course is interrupted by remissions. Strangely enough—but in accordance with our theory—these remissions are quite frequently ushered in by spells of diarrhea. The emptying of the intestines of accumulated contents does away with the toxic absorption and for the time being an approach to normal function is resumed in the gastro-intestinal tract. The patient improves but this improvement is but temporary because a new process of accumulation is begun. After one or more remissions, the visceral damage is so great that mere evacuation of the intestines does not improve the patient's condition and he dies of visceral degeneration and insufficiency.

In consideration of this hypothesis, we assume that the nearest approach to the natural treatment of the disease would be the method of most benefit to the patient. Consequently we decided that intestinal drainage should be tried. Because drainage above the terminal ileum is incompatible with prolonged life; because we have found evidence of cecal stasis in some of the patients observed, and because of its technical simplicity, we decided that drainage should be instituted in the region of the ileocecal coil. Another reason for choosing this site was on account of the high absorbability of the right half of the colon.

Ileostomy has been performed in at least seven cases. The results have been encouraging, but the series is too small to

justify generalization regarding the treatment.

The following case represents a fairly typical reaction to the treatment.

CASE REPORTS.

Mrs. R. G., aged 59, white, was a housewife, and the mother of four children. The family history was negative. Her general health had been good until about two years ago when the present illness began. At this time the patient noted the following symptoms: Asthenia, anorexia, pallor, and constipation. She consulted a physician in July, 1924, on account of a sore tongue. There was some improvement during August and September, 1924. I saw the patient first, November 5, 1924. She showed marked weakness and pallor and the characteristic color of pernicious anemia. She complained of pains in the feet and, to a lesser degree, in the fingers. There was a slight atrophy of the tongue. The physical examination was essentially negative otherwise.

Laboratory findings were: Red blood count, 1,435,000; white blood count, 3,000; hemoglobin (Sahli), 38 per cent; color index, 1.5; volume index, 1.4; smears typical of pernicious anemia, showing marked poikylocytosis and anisocytosis, relative lymphocytosis, platelet diminution, and many nucleated erythroblastic cells; examination of the stomach contents showed no free hydrochloric acid; gastric *x*-rays were negative; the urine contained urobilin and urobilogen.

After two blood transfusions, an ileostomy was done November 21, 1924. Exploration was negative except for moderate dilatation and slight thickening of the cecum. Convalescence was satisfactory except for a rather severe cystitis. There was progressive blood improvement, with no more transfusions. The pigments have disappeared from the urine, and the skin has cleared up. A gradual symptomatic improvement continued until an attack of influenza in the latter part of January, but this was not attended by much alteration in the blood picture. The patient is now regaining her strength rapidly.

BLOOD CHART IN ABOVE CASE.

Date	R. B. C.	Hb.	Color Index	Vol. Index	W. B. C.
November 6	1.435	38	1.3	....	3000
November 10	.....	....	....	1.4	.....
November 12	1.235	35	1.4	....	3250
November 14	1.125	32	....	....	.....
November 29	1.360	41	1.4	....	.....
December 9	1.310	36	1.3	....	.....
December 19	2.710	61	1.1	....	.....
December 27	2.900	78	1.3	....	.....
January 15	3.340	81	1.2	....	.....
January 20	3.590	80	1.1	....	.....
February 17	3.560	74	1.0	1.0	4500
March 10	4.020	83	1.0	....	6500

MISCELLANEOUS

AMERICAN PROCTOLOGIC SOCIETY MEETING.

The American Proctologic Society will meet at the Ambassador Hotel, Atlantic City, May 25-26, 1925, during the session of the American Medical Association. This meeting will open at 9 a. m. on Monday, May 25, with the Presidential Address, by Dr. Frank C. Yeomans, of New York. The following proctologists will participate on the program of the two day's session: Drs. G. Milton Linthicum, Baltimore; A. J. Murietta, Los Angeles; L. A. Buie, Rochester; J. F. Saphir, New York; A. A. Landsman, New York; T. C. Hill, Boston; Collier F. Martin, Philadelphia; W. A. Fansler, Minneapolis; J. D. Stewart, New York; W. M. Beach, Pittsburgh; D. A. Kraker, Newark; I. L. Ohlman, Pittsburgh; Louis J. Hirschman, Detroit; E. H. Terrell, Richmond; E. G. Martin, Detroit; J. F. Montague, New York; H. E. Dunne, Washington, D. C.; J. Rawson Pennington, Chicago; C. C. Mechling, Pittsburgh; J. M. Lynch, New York; Arthur Crookell, Seattle; John L. Jelks, Memphis; Curtice C. Rosser, Dallas, and D. S. McKenney, Buffalo. Those desiring further information concerning this meeting should address the Secretary of the American Proctologic Society, Dr. J. F. Montague 540 Park Ave., New York City, N. Y.

THE FAMILY DOCTOR.

In the evening by the twilight,
When the shadows come and go,
And the loved one burns with fever
While the pulse is on the go,
Who is it comes to bring you hope,
Yea, ofttimes brings relief;
Who gives the best he has to give,
In sorrow and in grief?

Who travels in the night and rain,
In sunshine and in sleet;
Goes o'er the road in mud and slush
Some sorrowing home to greet?
Who cheers you up when hope seems vain,
And smiles through weary eyes;
And to your foolish questions
Gives gentle, sweet replies?

Who, though the going may be rough
And he knows you cannot pay,
Leaves a warm bed on some cold night,
For a dark and stormy way,
And fights the storm, the rain and sleet,
And risks his health and life
That he, perchance, may bring relief
To husband, child or wife?

No, he is not an angel, son,
You'll have to guess again;
He's just the family doctor
With a heart like other men,
Who likes a smile and a kind word
When he has done his best,
And grieves with you in that dark hour,
As the loved one sinks to rest.

He's with you when you enter life;
He's with you when you go;
He's with you in your sorrow
And when your pulse is low,
He's just part of the family,
With a heart like other men;
He lives to help and cure your sick
And make them well again.

So when you see your doctor next,
Just pass a smile his way;
And when you hear some knocker talk,
Just have a kindly say,
And ask him if he paid his bills
When the family sick got well;
Yes, ask him if he talks as loud
Of the good deeds he could tell.

—S. C. Hoyle, College Station, Texas.

MEDICAL OFFICERS OF WORLD WAR TO HOLD DINNER AT A. M. A. MEETING.

An attractive feature of the annual meeting of the American Medical Association at Atlantic City will be the reunion of the medical men who served their country in the army and navy during the World War, to renew the memories, friendships and associa-

tions of those eventful days. The Chief Surgeon of the A. E. F. will be there and the President of the Association of Military Surgeons, Surgeon General Hugh E. Cumming, and other officers of the association under whose auspices the meeting will be held. An effort will be made to group together those who served in the same organizations and so it is requested that reservations be made as early as possible, and that comrades state in writing for them the base hospital or other medical unit to which they belonged. Write for tickets to Colonel Burt R. Shurly, Med. Res., U. S. A., 62 West Adams Ave., Detroit, Michigan.

Time and Place: May 27 at 7 p. m., at the Ritz-Carlton Hotel, Atlantic City.

Members of the Association of Military Surgeons are requested to wear the badge of the Association.

UNITED STATES CIVIL SERVICE EXAMINATION.

The United States Civil Service Commission announces the following open competitive examination: Junior Medical Officer, Assistant Medical Officer, Associate Medical Officer, Medical Officer, and Senior Medical Officer.

Applications for the positions listed above will be rated as received until June 30. The examinations are to fill vacancies in various branches of the Government service, at entrance salaries ranging from $1,860 to $5,200 a year.

Applicants for these positions must have been graduated from a medical school of recognized standing, and, in addition, have had certain specified experience or postgraduate study. It is provided, however, that applicants for the position of junior medical officer who are senior students in a medical college, may be admitted to the examination subject to their submitting proof of actual graduation within six months from the date of making oath to the application.

The need is for eligibles who are qualified in the various specialties of medicine and surgery; there is no great need at this time for those who are qualified in general medicine or surgery.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. Civil Service Examiners at the postoffice or custom house in any city.

THE MANAGEMENT OF EXOPHTHALMIC GOITER.

In an endeavor to ascertain its average duration and the effect of different forms of treatment on exophthalmic goiter, J. Marion Read, San Francisco (*Journal A. M. A.*, December 20, 1924), collected from the literature the data on 189 cases which had been followed for three months or over. His findings and views are as follows: Exophthalmic goiter is a disease of unknown etiology, which runs a natural course of long duration which it is difficult to shorten very appreciably by any known means. The aim of all therapy should be to carry the patient through its course with the maximum of comfort to the patient and as little permanent damage as possible. It must not be forgotten that the most serious of the sequelae is myocardial insufficiency, which may develop in untreated severe cases, but is not encountered as frequently as we formerly believed. The rest, reduction of toxicity, and cardiac support are all aimed at avoidance of this distressing aftermath. The judicious administration of iodin may, in many cases, prove as effective as any other single means of reducing toxicity and slowing the pulse rate. In addition to the time element, which is the most important single factor in effecting a cure, the most effective measures are, in order of their importance, (1) rest, both physical and mental; (2) röentgen ray; (3) iodin; (4) symptomatic therapy, of which quinin hydrobromid is very effective, and (5) in a very few cases, surgical intervention, the type varying with conditions. A logical conclusion follows: namely, that no patient suffering from exophthalmic goiter should ever be allowed to pass from the supervision of the internist. To draw distinctions between medical, surgical and radiologic treatment is merely splitting hairs. Premature classification of a disease as a medical or surgical condition before its etiology is discovered will lead to dissatisfaction in the minds of both patient and physician, especially the former. Both surgery and radiology are therapeutic weapons, which the internist may employ as occasion arises. Individualization is the key to successful treatment. Stereotyped therapy will be unsuccessful in a large percentage of cases and the patients, still suffering, will seek further aid, and to the surgeon will come the medical failures, and to the internist will go the surgical failures, each specialist receiving the impression that the other type of treatment results largely in failures and his own results chiefly in cures. It is necessary to maintain an open-minded attitude toward the therapy of exophthalmic goiter, always recognizing that at present it rests on an empiric basis. Not until the etiology is established will it be possible to employ rational therapy in the treatment of this disease.

THREE CASES OF ACUTE ENCEPHALITIS TREATED WITH SPECIFIC SERUM.

The serum used by Henry F. Helmholz and Edward C. Rosenow, Rochester, Minn., was obtained from a horse repeatedly injected with a streptococcus isolated from a patient suffering from typical encephalitis. The serum was administered intravenously and intramuscularly in doses of from 5 to 20 c.c. on each of three successive days in two cases, and on two successive days in one case. The effect of the injection of serum in all three cases was striking. The authors are anxious that the serum shall be tried out in a larger number of cases. It is available to all that are interested in using it. It is not claimed that the specific serum was the curative factor in these cases. With the injection of the serum, however, there was a decided improvement in the patient's general condition and a complete clearing up of the nervous symptoms of encephalitis. Furthermore, the serum protects animals against disease following intracerebral injections of the streptococcus which is not the case with normal horse serum.—*Jour. A. M. A.*

OPPORTUNITIES FOR GRADUATE MEDICAL STUDY IN NEW YORK.

The Committee on Medical Education of The New York Academy of Medicine has prepared a series of synopses of approved opportunities for graduate medical study in New York City which will soon be published for distribution. The synopses cover dermatology and syphilology, obstetrics and gynecology, internal medicine, neurology and psychiatry, ophthalmology, oto-laryngology, pediatrics, surgery, urology, and orthopedic surgery.

A Bureau of Clinical Information is maintained at the Academy of Medicine, 17 West 43rd street, where detailed information is available regarding op-

portunities for graduate medical study in New York, and also in other cities of the United States and abroad. The Executive Secretary in charge of the Bureau is prepared to answer inquiries concerning ordinary internships, special internships or residencies, graduate courses in medical schools and teaching hospitals, and extension courses. Much information in regard to graduate medical work in England and on the Continent is on file.

The Bureau publishes a Daily Bulletin of Surgical Clinics which will be mailed free to visiting doctors on request. A Weekly Bulletin of Medical Clinics also is published. A book of the fixed clinics of Greater New York, with a transportation guide, has been prepared for the use of visitors whose stay in the city is limited, and is furnished without charge.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Tuberculin Intracutaneous (Human Type).—A preparation of tuberculin-Koch (New and Nonofficial Remedies, 1924, p. 309) marketed in single packages of one intradermal syringe containing 0.00005 Cc. of tuberculin old, "O. T.;" in packages of five intradermal syringes, each containing 0.00005 Cc. of tuberculin old, "O. T." and in single vial packages containing tuberculin old, "O. T." sufficient for fifty tests. H. K. Mulford Co., Philadelphia.

Hypodermic Tablets Strophanthin 1/120 Grain-Lilly.—Each tablet contains strophanthin U. S. P. 1/120 grain. Eli Lilly & Co., Indianapolis.

Hypodermic Tablets Strophanthin 1/200 Grain-S. & D.—Each tablet contains strophanthin U. S. P. 1/200 grain (0.325). Sharp & Dohme, Baltimore.

Ampoules Ouabain 0.0003 Gm. (1/128 Grain)-Lilly.—Each ampule contains ouabain crystallized-N. N. R., 0.0005 gm. in 2 c.c. of a buffered, sterile normal salt solution. Eli Lilly & Co., Indianapolis.

Compressible Capsules Mercury Salicylate "Synthetic," 1 Grain for Intramuscular Injection.—Mercuric salicylate 0.065 gm. (1 grain) suspended in 1 c.c. of a mixture of benzoinated lard, 67 per cent; peach kernel oil, 31 per cent; camphor, 1 per cent; phenol, 1 per cent. Synthetic Drug Co., Toronto, Canada.

Squibb's Liquid Petrolatum with Agar.—A mixture composed of liquid Petrolatum-Squibb-heavy (California) 50 Cc.; agar 1.5 Gm.; sodium benzoate, 0.1 Gm.; acacia, glycerin and water sufficient to make 100 Cc. Squibb's liquid petrolatum with agar has the action of liquid petrolatum. It is claimed that the agar by adding bland bulk to the bowel contents, stimulates peristalsis in a normal way and that the combination of liquid petrolatum with agar mixes readily with the feces and softens them. E. R. Squibb & Sons, New York.

Tryparsamide, Sodium N-phenylglycinamide-p-arsonate.—Tryparsamide contains 24.6 per cent of arsenic in organic combination. Tryparsamide is primarily a trypanocidal agent and is proposed for use in the treatment of certain forms of trypanosomiasis. Tryparsamide has some spirocheticidal activity and has an unusual power of therapeutic penetration, especially in the case of the central nervous system. This has led to its trial in certain cases of cerebrospinal syphilis. The value of the drug in these conditions, as compared with other methods of treatment, has not been conclusively determined. Tabetic affections have responded less satisfactorily, and patients with general paresis with advanced physical and mental deterioration have shown little or no improvement and the drug may hasten the progress of the disease in such cases. Its use is considered to be contraindicated in forms of syphilis other than that of the central nervous system. The worst of the properties of the drug is a tendency to produce amblyopia. Before using the drug, consideration should be given to the frequent production of visual injury. Tryparsamide may be administered subcutaneously, intramuscularly or intravenously. Powers-Weightman-Rosengarten Co., Philadelphia.—*Jour. A. M. A.*, March 14, 1925.

Insulin-Squibb 40 Units.—5 Cc. vials containing 40 units of insulin-Squibb (*Jour. A. M. A.*, Nov. 8, 1924, p. 1509) in each Cc. E. R. Squibb & Sons, New York.

Rabies Vaccine (Phenol Killed)-Mulford. — The virus is prepared according to the general method of David Semple. It consists of a sterile suspension of the brain tissue of rabbits moribund from the injection of a virulent fixed strain of rabies. The virus is killed by the use of phenol and by incubation at 37.5 C. for twenty-four hours. Marketed in packages of 14 doses, each dose contained in a syringe. All the doses are of the same potency. H. K. Mulford Co., Philadelphia.—*Jour. A. M. A.*, March 21, 1925.

PROPAGANDA FOR REFORM.

Nonspecific Protein Therapy.—The mechanism involved in nonspecific therapy concerns cell stimulation. Weichardt assumes that this involves all cells. Other researches indicate that certain cell groups may be more particularly concerned. On stimulation, the cell becomes more permeable. Antibodies, enzymes, fibrinogen, etc., leave the cell. Under certain conditions a rapid destruction of organisms may take place to an extent that may overwhelm the patient by sudden liberation of toxic bacterial products. The first phase of the reaction corresponds in many ways to a parasympathetic effect. Later, a second phase follows during which the patient is improved. This phase may exist for a considerable time and is clinically apparent in the improvement of the patient. No cases are reported in the literature in which chronic urticaria has been so treated although many related conditions on evident or probable sensitizations have been improved (hay-fever, asthma, migraine, epilepsy, intermittent hydrarthrosis). Great caution must be used in the employment of the more active substances such as typhoid vaccine, peptone and collargol. Very small doses of relatively mild activity (tuberculin, casein, turpentine) are much more suitable. This has been the experience in chronic arthritis. The dosage must be adjusted to suit the patient, care being taken to keep the dose at all times just below that which causes a focal reaction at the site of the lesion.—*Jour. A. M. A.*, June 7, 1924.

Morphin Addiction.—The so-called withdrawal symptoms which arise in those who have become accustomed to large doses of morphin are well known to all practitioners who are compelled to deal with such habitués. To account for these symptoms it has been alleged that the continuous taking of morphin causes the presence in the blood serum of a substance having a protective effect against this drug. However, it has been shown that the blood of a tolerant animal does not contain any protective substance against morphin, nor was there any substance capable of conferring any immunity to the toxic action of morphin on an animal into which it is injected, detected in the blood serum of a human being who has acquired a high tolerance to morphin. Also, it has been proven that a specific toxic substance is not produced by habituation to morphin. Since some methods of treating drug addiction have

been based on the belief that a toxic substance is formed, the time has arrived for seeking a new point of departure in the explanation of the various manifestations that are presented by drug addicts.—*Jour. A. M. A.*, June 14, 1924.

Exploiting the Cancer Sufferer.—The week of the annual session of the American Medical Association was chosen as a propitious time to resurrect two discredited cancer cures. A Philadelphia paper announced that the cause of cancer had been discovered and that a treatment had been evolved which was producing remarkable results. The publicity dealt with the alleged cancer serum of T. J. Glover of Toronto. This received some attention in 1921, but was not shown to be of value. The second "cancer cure" to be resurrected was that of Dr. Wm. F. Koch of Detroit. Koch's nostrum was brought to the attention of the newspapers of the country by one C. Everett Field. It received some attention in 1921, and was reported on unfavorably. The new publicity given to these two discredited "cures," is producing the usual effect. Sufferers from cancer, both directly and through their physicians, are frantically trying to learn whether there is any warrant for the claims so widely broadcast.—*Jour. A. M. A.*, June 21, 1924.

"A" Formula or "The" Formula?—When the proprietary evil in the United States was at its worst, a common piece of advertising deceit was that of the fake formula. On its face, such a "formula" was impressive—at least to those who were not chemists. After the American Medical Association created its own chemical laboratory, the Association chemists demonstrated repeatedly the absurdity of the seriocomic chemistry of some of the pharmaceutical manufacturers. It was not long before the crude chemistry and cruder dishonesty of pharmaceutical concerns began to disappear. Yet today there are still a few firms which endeavor to lend plausibility to their wares by resurrecting old methods. The report of the Council on Pharmacy and Chemistry on Gly-So-Iodonate brings out that a formula, both qualitative and quantitative, appears on the label of the preparation. The formula is absurd and impossible, and the A. M. A. Chemical Laboratory found that some of the ingredients were not present in the amount claimed.—*Jour. A. M. A.*, December 22, 1923.

Gly-So-Iodonate.—The Council on Pharmacy and Chemistry reports that in 1921 consideration of Gly-So-Iodonate was requested. The product, said to be a "chemical germicide-antiseptic" was "owned and controlled exclusively by the Wisconsin Medical Laboratories," which is at the present time claimed to be affiliated with the National Medical Research Laboratories, Milwaukee, Wis. A statement of composition was furnished the Council, which named iodin, potassium iodid, sodium carbonate, sodium bicarbonate, mercuric chlorid, calcium sulphate and magnesium sulphate as chemicals entering into the product. The method of preparation contained the claim that these substances after solution in water were distilled. The Council considered the information and informed the Wisconsin Medical Laboratories that obviously the formula was an impossible one, since the iodin would react with the alkali iodid and alkali carbonate to form iodid and iodate, and the mercuric chlorid would react to form alkali mercuric iodid. Also, while Gly-So-Iodonate was claimed to be a distillate, the solids of the formula evidently could not be distilled with water vapors. Further, the Council held the formula to be needlessly complex and, therefore, irrational, and the name unacceptable because it was not descriptive of the composition of the product. From recent developments, it is evident that an active selling campaign for Gly-So-Iodonate is being directed toward factories and large commercial concerns by the National Medical Research Laboratories. Also, new products—Iomer-Mensal, Saline-Meramno and Gly-So-Dental—which are said to have Gly-So-Iodonate for their base are marketed. The statements of the composition of Gly-So-Iodonate have not been materially changed. Incomplete and meaningless statements of composition appear on the labels of the products. Platinum and vegetable alkaloids are claimed to be constituents of Gly-So-Iodonate. The A. M. A. Chemical Laboratory reported that there were no alkaloids present, that mercury was present in less than one-twentieth of the claimed amount, and that platinum was present in less than one-forty-fifth of the asserted amount. From the report of the Council it is evident that Gly-So-Iodonate does not have the composition claimed, that the name is nondescriptive and misleading, and that the product is marketed with unwarranted claims.—*Jour. A. M. A.*, December 22, 1923.

The Sanborn Treatment for Diabetes. — This was formerly exploited to the public by the Analytical Laboratories Inc., Chicago, which had for its president, C. S. Harmon, and for its medical director, Ida M. Sanborn. Mr. Harmon died December 14, 1924, the cause of death: diabetes mellitus. According to the advertising the treatment involved no interruption of ordinary pursuits, and a normal, nourishing diet, with no restrictions was fundamental and essential from the start. It was announced that each case was individually diagnosed and treated under the personal direction of the medical director, Dr. Sanborn.

The treatment has been boosted by one Edwin F. Bowers who has been connected with nostrum exploitation. According to Bowers "the treatment Dr. Sanborn employs consists of a combination of Leptandrin, Sodium Sulph., Potassium Phos., Sodium Cacodylate, Sod. Bicarb, and Capsicum, so adjusted and proportioned as to meet the wide range of pathological conditions that present, or the changes that may develop during the progress of the treatment."

About a year ago the Chicago office was closed and the next heard of the treatment was from "The Sanborn Laboratories," Battle Creek, Mich., and large newspaper advertisements sing its praises. It has for its "medical staff." Walter T. Bobo, M. D., and Ernest D. Perkins, M. D., names that will sound familiar to students of contemporary quackery.—*Jour. A. M. A.*, March 7, 1925.

Scarlet Fever Antitoxin and Scarlet Fever Serums.—The scarlet fever serum of Dochez and Blake is prepared by injecting a horse with culture medium and into this inoculating living streptococci which cause abscesses producing toxin against which the horse develops antibodies. The serum derived from the horse is an antistreptococcus serum.

The scarlet fever antitoxin prepared by the Dicks is secured by injecting a horse with a toxin prepared from the filtrate of cultures of specific streptococci isolated from cases of scarlet fever. With this toxin, the Dicks report, they have been able to produce symptoms in human beings that closely resemble the symptoms of scarlet fever. The toxin therefore is injected into a horse. The serum obtained from the horse is a scarlet fever antitoxin just as diphtheria antitoxin serum is prepared by inoculating a horse with the toxin of diphtheria bacilli elaborated by the diphtheria bacillus. The latter statement is true, of course, only to the extent that the Dick toxin is actually the specific scarlet fever toxin. The matter is complicated still further by the fact that the Dick antitoxin is concentrated, and it is claimed less

likely to produce serum reactions than the unconcentrated Dochez serum.—*Jour. A. M. A.*, March 14, 1925.

Tricalcine Not Accepted For N. N. R.—The Laboratoire des "Produits Scientia," Paris, France, markets "Tricalcine" in the form of powder, cachets, compressed tablets, chocolate tablets, and also cachets of "Tricalcine adrenalinee," stated to contain 3 drops of a 1 to 1000 solution of epinephrin per cachet, cachets of "Tricalcine Methylarsinee," stated to contain 0.01 gm. of sodium cacodylate per cachet, and cachets of "Tricalcine Fluoree," stated to contain 0.02 gm. of calcium fluorid. From the indefinite statements which appear in the advertising, it is evident that Tricalcine is claimed to be a mixture containing calcium phosphate and calcium carbonate as its essential ingredients, but that its exact composition is not declared. The advertising for Tricalcine has for its basis the abandoned lime starvation theory. The recommendation for the use of Tricalcine are without a satisfactory experimental basis. The Council on Pharmacy and Chemistry reports that Tricalcine and its preparations are unacceptable for New and Nonofficial Remedies because (1) indefinite, conflicting and unacceptable statements are made in regard to the composition of Tricalcine; (2) the product is marketed in a way to invite its promiscuous use by the public; (3) the extensive recommendations for its use are unwarranted, and (4) the combination of Tricalcine with, respectively, epinephrin, sodium cacodylate and calcium fluorid is unscientific.—*Jour. A. M. A.*, March 14, 1925.

Agrilin Not Accepted for N. N. R.—Agrilin is the uninformative name under which Lehn & Fink, Inc., New York, market a mixture of liquid petrolatum and agar. The preparation is stated to contain 38.6 per cent of liquid petrolatum, and 2.25 per cent of agar. Agrilin is offered to the medical profession and also through the trade package and newspaper advertisements to the public. The Council on Pharmacy and Chemistry found Agrilin unacceptable for New and Nonofficial Remedies because (1) the name is not descriptive of its composition; (2) it is marketed with claims that are unwarranted and misleading, and (3) it is advertised directly and indirectly to the public and thus furthers the ill-advised use of laxatives.—*Jour. A. M. A.*, March 14, 1925.

Loeser's Intravenous Solution of Calcium Chlorid Not Accepted for N. N. R.—In the advertising of the New York Intravenous Laboratory, Loeser's Intravenous Solution of Calcium Chlorid is proposed for use especially in intestinal tuberculosis and tetany. In either condition are the indications so urgent that the intravenous method is the only or the best method of introducing calcium. The oral administration is generally to be preferred. But the manufacturers make the astounding statement that "Neither calcium nor guaiacol is adapted to oral administration." The Council on Pharmacy and Chemistry found Loeser's Intravenous Solution of Calcium Chlorid inadmissible to New and Nonofficial Remedies because the advertising implies that the intravenous method is generally the method of choice for the administration of calcium and that calcium is not adapted to oral administration; these claims were held misleading and unwarranted.—*Jour. A. M. A.*, March 2, 1925.

Sagrotan Omitted from N. N. R. and Mitysol Not Accepted. — Under the proprietary, nondescriptive name "Sagrotan" the Council on Pharmacy and Chemistry recognized a mixture containing chlorcresol and chlorxylenol in a soap solution marketed by Lehn & Fink, Inc. This action was taken because the rules of the Council provide that a proprietary name may be recognized for a product when such a name is applied to it by the discoverer and because Lehn & Fink, Inc., claimed that they had secured the trademark rights to the name from Schuelke and Mayr, Hamburg, Germany. Subsequently, Lehn & Fink, Inc., informed the Council that the word Sagrotan "had fallen into the hands of the alien property custodian "and that for this reason the product was to be marketed as "Mitysol." The Council rescinded its acceptance of "Sagrotan" because the product is no longer marketed. The Council refused recognition to the product now marketed as Mitysol for the reason that Lehn & Fink is not its originator.—*Jour. A. M. A.*, March 21, 1925.

Typhoid Vaccine.—The typhoid vaccine now in general use, is usually made from a type of organism of low virulence, properly sterilized by heat and containing preservatives, and is administered in doses of three injections, seven days apart. Immunity apparently appears about the end of the first week after the first or second injection. The blood serum of the vaccinated person has then acquired immunizing properties. These properties increase and may reach their maximum shortly after the third injection. It seems to be agreed that this immunity, once acquired, may last for several years; but there is no absolute certainty that a person immunized may not be subsequently infected during this period and typhoid fever produced.—*Jour. A. M. A.*, March 21, 1925.

NEWS

Arrangements Committee for Southern Medical Meeting Is Selected.—The following Committee for the Meeting of the Southern Medical Association in Dallas during the month of November, has been appointed: Dr. H. Leslie Moore, Chairman; Doctors Franklin A. Pierce, W. W. Samuell, Edward H. Cary, R. W. Baird, G. M. Hackler, A. I. Folsom and H. G. Wolcott. Sixteen Southern States are represented in this Association, and an unusually large attendance is anticipated. Prominent medical men from all over the United States and several foreign countries will be in attendance.

The Veterans Bureau Hospital Bill Passes House.—The Veterans' Bureau Hospital Bill, authorizing the expenditure of $10,000,000 for additional hospital facilities, recently passed the House of Representatives. Out of this appropriation it is expected that the American Legion Memorial Hospital at Legion, Texas, will be purchased. The State has placed a value of $1,700,000 on this hospital. General Hines, Director of the Bureau, has recently inspected the property with a view of purchasing same. If this hospital is sold to the Bureau, $200,000 of the sale price will be turned over to the American Legion as a trust fund to be used for the help of disabled ex-service men.

"Panel" System in England Works Hardship on Medical Profession.—It is reported that thousands of fully qualified doctors in England have not done a day's work for months, because of the overcrowded state of the medical profession in part, but principally due to the "panel" system. Under this system every person earning under $25 weekly must pay a small weekly fee for free medical attention, which results in some doctors having as many as from ten to twelve thousand patients on their "panel" list, while other doctors, it is alleged, are forced to earn a living by work other than the practice of medicine. Advocates of "state medicine" in this country would do well to take notice of the English experiment in this direction.

SOCIETY NEWS

Bexar County Medical Society met March 19, with 50 members and five visitors present.

The program of the evening was furnished by three members of the teaching staff of Baylor University of Dallas.

Dr. G. H. Hackler of Dallas read a paper on "Traumatism of the Head and Brain in Civil Practice." The essayist drew from a large personal experience in this class of injuries. He pled for early lumbar punctures in such cases and reported several fractures and contusions of the brain that had been cured by lumbar puncture, performed every 48 hours until the fluid was clear. He stated that this method was particularly applicable to cases without a depressed fracture, or to hematoma in acute cases. In cases of head injury where a period of unconsciousness is followed by consciousness and then a relapse to the unconscious state, there is active hemorrhage. In cases of extensive injuries of the scalp and skull with perhaps extension to the brain, the injury is usually not as severe as might be concluded from the first examination. Massive fracture of the skull may be treated by decompression and lumbar puncture. A case of intracranial hemorrhage with massive fracture is not disturbed until the primary shock has subsided.

Dr. Hiram A. Phillips, in discussing Dr. Hackler's paper, stated that cranial fracture could be divided into three types, namely: bending, bursting and expansive. Symptoms were immediate, intermediate and deferred. While in the army he had worked out the following routine for treating head injuries: a complete neurological examination: blood pressure determinations every hour from 18 to 24 hours; lumbar puncture; *x*-ray examination, and an ophthalmoscopic examination made at once and repeated later. If the systolic pressure is below 75, operation should not be attempted as the patient would probably die on the table. The spinal fluid is nearly always bloody and lumbar punctures lower the spinal pressure. Repeated lumbar punctures not only serve as diagnostic and therapeutic measures, but will often obviate an operation. In extradural fracture of the vault, the spinal fluid will not be influenced. The patient will usually wince if pressure is made over the site of the fracture. The external auditory canal should not be irrigated when there is hemorrhage from the ear. He had not seen a single case of choked disc in any of his cases of skull fracture.

Dr. Hackler in closing believed that there was such a thing as contusion of the brain. Blood in the spinal fluid is not as important as the pressure of the spinal fluid. If the patient does not improve after several tappings, some other method of treatment should be used, but lumbar puncture should always be given a trial. The location of the fracture should always be determined. Blood from the ear does not necessarily mean a fracture of the middle fossa or even a fracture of the skull. In all the cases he had seen, the ophthalmoscopic examination revealed nothing of special value.

Dr. D. W. Carter read a paper on "The Relative Frequency of the Causes of Coma and Their Differential Diagnosis." This paper was a most concise and complete treatise on a very inclusive subject.

Dr. Lee Rice thought that Dr. Carter's paper was one of the most complete that he had ever heard. He emphasized what Dr. Carter had said relative to coma in diabetes and nephritis, that coma could occur with practically no urinary findings. A careful bedside observation is extremely helpful, as uremia can be detected by the dry glassy skin, etc. Diabetic coma is usually slow in its onset and accompanied by rapid, deep, even respiration. Fractures of the skull are too often overlooked as the cause of coma. Encephalitis lethargica and malaria are occasional causes of coma.

Dr. E. H. Cary of Dallas, read a paper on "The Ophthalmoscopic Appearance of the Eye Grounds in Such Cases." He stated that Pringle had found in 101 autopsies on patients dying from head injuries, that there was not a single case of fracture into the optic foramen or injury to the optic nerve. Early cases of slight injury to the nerve should be approached with the idea of saving the eye. He thought that the nerve sheath could be opened and emptied of the blood very easily.

Dr. J. S. Steele thought that every case of head injury and coma should have an ophthalmoscopic examination, while a small per cent of head injuries show changes in the optic nerve, fractures around the orbit and diabetic coma will usually show nerve changes.

Dr. J. H. Burleson thought that changes in the pupil are usually more valuable in head injury cases than can be obtained by ophthalmoscopic examination, although the ophthalmoscope should always be employed. Changes in the fundus are usually not marked in the early stages of head injuries. The ophthalmoscope is very valuable in examining malingerers.

Bexar County Medical Society met March 26, with forty members and three visitors present.

Dr. W. H. Hill read a paper on "Primary Carcinoma of the Liver." This paper was based on four autopsy reports from the John Sealy Hospital, that occurred among 150 autopsy reports, which is an extremely high percentage.

Dr. B. F. Stout, in discussing the paper, stated that the condition is extremely rare, and that when malignancy starts in the liver cell, it is of the diffuse type with multiple nodules which seem to start simultaneously. It is a curious fact that although the growth so completely occupies the liver, it rarely metastasizes.

In closing, Dr. Hill stated that the literature did not reveal any cases of primary carcinoma of the liver in which there had been a single nodule, and that in this condition surgery had never proved successful.

Dr. S. P. Cunningham read a paper on "The Cause and Prevention of Postoperative Gas Pains."

Dr. Frank L. Paschal, in discussing the paper, stated that he believed in purgation several days prior to the operation, with an enema the night previous to and the morning of the operation. He was convinced that gas pains are increased by the use of morphine. He believed that the continuous Murphy drip was apt to cause distention of the large bowel. Water should be given by mouth early, as the peristaltic wave induced would be helpful in carrying off the gas.

Dr. S. Burg does not purge or starve his patients. He gives an enema in the morning and always gives the patient a cup of coffee. He thinks that gas pains are largely the result of rough handling of the intestines. He gives water by the mouth as soon as possible, and 1 c.c. of pituitrin hypodermatically two times a day for the first few days.

Dr. O. J. Potthast stated that Coffee of Portland, Oregon, tried to keep the patient in as normal a condition as possible, giving very little alkalies or morphine. Peristalsis probably does not return at the same time to all parts of the intestines. If results are not obtained from one can of water, several cans should be used, the enemas acting as bowel stimulants. He advised the giving of hot water by

mouth and 8 ounces of glucose and soda every three hours by rectum.

Dr. S. P. Cunningham, in closing, thought that fear and lack of mental rest were a greater disadvantage than morphine in the treatment of gas pains. He gave 10 ounces of alkaline solution by the bowel. He thought that in giving glucose and alkalies together that the latter were neutralized by the acids generated from the glucose in the intestinal tract. He stated that Squire of Ontario, insisted on the free use of morphine which he had used in 1200 laparotomies. He also advised two drams of tincture of digitalis with fluid given in the rectum, believing that the digitalis would relieve the tachycardia.

Delta County Medical Society met at the Cooper Hotel, April 6, for a dinner, after which the meeting was adjourned to the reception room of Drs. D. O. Lowry and C. C. Taylor. The following members were present: Drs. D. O. Lowry, E. E. Woodruff, T. M. Darwin, O. Y. Janes, W. O. Hearne, M. A. Estep, D. B. Westerman, S. F. Blair and C. C. Taylor.

Dr. T. M. Darwin reported a case of sudden death following accouchement.

Dr. O. Y. Janes read a paper on "Why We Make Errors in Diagnosis," the discussion of which was opened by Dr. S. F. Blair.

A committee was appointed to confer with similar committees from a number of civic and luncheon clubs, regarding the building of a hospital at Cooper.

El Paso County Medical Society met March 16, with thirty-four members and one visitor present.

Dr. J. M. Smith of Chihuahua, Mexico, was elected to non-resident membership in the society.

Dr. Lowman of Los Angeles, California, showed a series of *x*-ray slides, demonstrating a number of congenital deformities, chiefly of orthopedic character. A discussion of this subject by Drs. G. Werley, W. L. Brown and Harry Leigh followed.

Dr. E. D. Strong reported a case which showed signs of arsenical poisoning on postmortem examination. Dr. Strong stated that the coroner had been informed of these findings, but so far had declined to investigate the matter further.

El Paso County Medical Society met March 23, with thirty-two members and three visitors present.

Drs. Cathcart and Mason presented four cases of primary tumor of the chest, in three of whom the history had been taken and the physical examinations made by Dr. E. A. Duncan.

One case had been classified as a chondroma, having a tumor about four inches in diameter in the right upper chest. Three were lymphosarcomas, beginning in the mediastinum, two of which had extended upward and involved the thoracic cavity. In these cases there was a paralysis of the diaphragm on the right side, probably due to pressure on the phrenic nerve by the tumor. The third case of lymphosarcoma showed a tumor 5 c.m. in diameter, just to the right of the center, between the third and fifth interspaces, anteriorly. The most pronounced symptom common to all of these cases except the last one, has been obstruction of the return flow of blood from the upper extremities, at times so marked that they are unable to lie down. The last patient complained only of an irritating cough.

These cases were discussed by Drs. Law and Vance and Major Scott.

Dr. E. A. Duncan read a paper on "Renal Function Estimation in General Practice." Dr. Duncan discussed several methods of estimating renal function, which can be easily carried out by the general practitioner. He thought that in estimating renal function, that one or more tests should be repeated several times. This class of cases is more frequently overlooked by the general practitioner than any other with which he comes in contact. Much information can be obtained by simple methods which may be carried out in any office practice.

Dr. Duncan's paper was discussed at considerable length by Drs. Werley, Scott, Rheinheimer and Lynch.

Drs. Leigh and Lynch reported a case of rudimentary left kidney and separate ureter with pyelitis in this kidney, occurring in a child two-and-a-half years old. The child first had the usual medical treatment with abatement of symptoms, and later a recurrence, at which time mercurochrome was given intravenously and the kidney pelvis washed with silver nitrate solution. Since then there has been no recurrence and the urine now shows only a very few pus cells.

This case was discussed by Major Scott.

Major R. E. Tarbett, who has been detailed by the United States Public Health Service at El Paso for the past three years, and who has been active in assisting in the reorganization of the city health department and in the eradication of mosquitoes in this vicinity, has been transferred to some other public health work. A motion was adopted that the Surgeon General of the U. S. Public Health Service be informed of the work Major Tarbett has done in El Paso and of the pleasant relations which have existed between him and the medical society.

El Paso County Medical Society met March 30, with thirty-four members and four visitors present.

Dr. J. W. Cathcart read a paper on "Röentgen Diagnosis of Pulmonary Tuberculosis." He brought out the salient points that may be expected from the *x*-ray in the diagnosis of pulmonary tuberculosis, illustrating his paper with some excellent diagrams and *x*-ray pictures. He emphasized the fact that the general public have come to place too much emphasis upon the *x*-ray findings alone. He is of the opinion that the röentgenlogist should first interpret his findings and then after assembling all of the data about the case he should make a restudy of his *x*-ray findings.

Dr. Cathcart's paper was discussed by Drs. Laws, Egbert, Gallagher, Riley, Homan and Casellas.

Dr. P. R. Casellas read a paper on "Artificial Sunshine." Dr. Casellas discussed the subject very thoroughly and cited a number of experiments in which the actinic rays were very beneficial in the treatment of certain diseases. He emphasized the fact that the artificial rays can at all times be controlled and for this reason are superior to the sun rays. This paper was discussed by Drs. Egbert, Leigh, Waite, Werley and Homan.

The question of the raise in the dues of the State Medical Association was discussed at length by the members of the society and considerable sentiment against this raise in dues was expressed. The question was left open to be discussed further at a future meeting.

Dr. E. C. Prentiss was appointed as delegate to the southwestern section.

Harris County Medical Society met April 4, with 49 physicians present.

Dr. F. J. Slataper read a paper on "Exophthalmus with Facial Paralysis, etc.— A Timely Clinical Case."

Dr. James Greenwood read a paper on "Spinal Cord Tumors," which was discussed by Doctors E. W. Applebe, F. L. Barnes and J. H. Graves, and by Dr. Gibbs Milliken, of Galveston. The discussion was closed by Dr. Greenwood.

Dr. R. L. Bradley read a paper on "The Value of Block Anesthesia in Pelvic Surgery," which was discussed by Docters P. R. Denman and Bryant, and the discussion was closed by Dr. Bradley.

Dr. Gibbs Milliken, of Galveston, read a paper on "The Clinical Use of Sodium Tetraiodo-phenolphtha-

lein in Cholecystography," which was discussed by Doctors J. H. Agnew, Lechenger, R. K. McHenry and J. H. Graves. The discussion was closed by Dr. Milliken.

Harris County Medical Society met April 11, with 47 physicians present.

Dr. A. H. Flickwir reported on the present status in the control of canine rabies in Houston. A motion endorsing the work of Dr. Flickwir in the enforcement of the Dog Muzzle Ordinance, was unanimously carried.

A symposium on "Myopathies (Muscle Pains)" was then presented as follows:

"Etiology," by Dr. C. U. Patterson.

"Differential Diagnosis," by Dr. J. Edward Hodges.

"Prognosis and Treatment," by Dr. Wm. G. Priester.

Discussed by Doctors J. H. Agnew, John L. Barnes, J. Henry Graves, L. B. King and L. J. Spivak. The discussion was closed by Doctors C. U. Patterson, J. E. Hodges and W. G. Priester.

Harris County Medical Society met April 18, with 43 physicians present.

Dr. Marshal Wallis read a paper on "Etiology of Rickets, a Report of Houston Cases," which was discussed by Doctors Hoode, William Strozier, E. L. Goar, A. H. Flickwir, John T. Moore, J. R. Bost and O. L. Norsworthy. In the absence of Dr. Wallis, the discussion was closed by Dr. H. K. Read.

Dr. J. R. Bost read a paper on "Treatment of Flatfoot in Children," which was discussed by Doctors William Strozier, Bryant, John T. Moore, H. K. Read and A. J. Mynatt. The discussion was closed by Dr. Bost.

Dr. O. L. Norsworthy read a paper on "Non-Malignant Uterine Neoplasms, With Special Reference to Radium Treatment," which was discussed by Dr. John T. Moore and the discussion closed by Dr. Norsworthy.

Hidalgo County Medical Society met at Mission, April 2, with the following members present: Drs. F. E. Osborne, J. M. Slater, T. R. Burnett, A. J. J. Austin, E. L. McCalip, J. G. Harrison, J. A. Miller, J. G. Whigham, W. E. Whigham, H. O. Schaleben, J. W. Jeffries, J. B. Stephens, J. P. Lockhart, T. J. Caldwell and J. R. Mahone.

Dr. McDowell of Edinburg was present as a visitor.

Dr. W. E. Whigham read a paper on "Differential Diagnosis of Appendicitis from Other Surgical Conditions of the Abdomen," which was freely discussed by a number of those present.

Dr. J. G. Harrison was elected as a delegate, and Dr. J. T. Lockhart as the alternate to the State Association meeting. Dr. McCalip was elected to the board of censors in addition to Drs. Harrison and Webb, who were serving on this board. A legislative committee was appointed, consisting of Dr. Salter as chairman, Drs. J. B. Stephens and J. G. Whigham.

Upon the invitation of Dr. Stephens, it was decided to hold the next meeting at Weslaco.

Kleberg County Medical Society met at Kingsville, April 10, 1925.

The society had as their guest, Dr. Eusebio Guajardo, of Monterrey, Mexico. Dr. Guajardo has been a member of Kleberg Medical Society since 1913, at which time he was located at Kingsville, and he has kept up both his interest and membership in the society even though he has been practicing in Monterrey for some time. He has been honored repeatedly by the Mexican Government, which, in recognition of Dr. Guajardo's ability, appointed him to represent the Mexican Government at the Child Welfare Congress at Brussels several years ago. He was recently appointed Dean of the Medical Department of the State University of Nuevo Leon.

Lamar County Medical Society met April 2, at the Gibralter Hotel as guests of the staff of Paris Sanitarium.

Dr. W. M. Wright, pastor of the First Baptist Church at Paris, delievered a masterly address on "My Ideal Doctor."

Dr. G. V. Brindley of Temple, read a paper on "The Relative Merits of the Different Anesthesias." The discussion was opened by Dr. Claudia Potter, also of Temple. A general discussion of the subject of anesthesia followed.

Nueces County Medical Society met April 7, at the Nueces Hotel.

Dr. Jerome Nast read a paper on "Stricture of the Urethra." He stated that stricture of the urethra was incurable, and that the patient should be instructed that he would have to return for treatment at regular intervals, indefinitely. He used silk instruments as he thought these produced less trauma than those made of metal. To illustrate the difficulty experienced at times in getting through a tight stricture, he stated that he had used as many as fifteen and twenty whale bone bougies before getting through.

Dr. F. U. Painter, in discussing the paper, agreed with Dr. Nast that urethral stricture was incurable, recommending gradual dilatation and condemning any cutting method.

Dr. Wyche stated that while the condition might be theoretically incurable, he had treated many cases that he considered were cured clinically, as they had gotten well and had no further symptoms.

Dr. J. M. Thompson said he had used a metal bougie attached to a galvanic current, which used with the proper strength of current had quite frequently softened the structure when all other measures had failed.

Potter County Medical Society met April 13 with the following members present: Drs. R. D. Gist, L. K. Patton, Neal Hall, D. S. Marsalis, R. S. Killough, R. M. Bennett, Guy Owens, W. Van Swearengen, G. T., S. P., and R. L. Vineyard, A. J. Cadwell, W. F. Dutton, J. J. Crume, M. L. Fuller, A. F. Lumpkin, Richard Keys, A. H. Lindsey, H. A. Whittington, A. E. Winsett, H. H. Latson, L. E. Petty from Panhandle, and M. A. Biggars from Canyon.

Visiting doctors present were: Drs. L. C. McClelland, Clovis, New Mexico; R. B. Wolford, Memphis, Texas; T. H. Parmlee, Electra; W. N. Wardlow, Childress; A. J. Leach, Wichita Falls, and J. J. Hanna of Quanah.

Dr. L. E. Petty of Panhandle read a paper on "Three Months Colic," in which the lactic acid formula was stressed because of its simplicity. This paper was freely discussed by a number of members.

Dr. W. Van Swearengen read a paper on "Roentgen Diagnosis of Pulmonary Tuberculosis" (with plate demonstrations). He quoted many authors in support of his view that the x-ray is always a valuable adjunct in diagnosing tuberculosis, and many times will make a positive diagnosis possible earlier than any other method.

Dr. A. E. Winsett read a paper on "Consideration of Some of the Etiological Factors of Gastric and Duodenal Ulcers." Both Dr. Swearengen's and Dr. Winsett's papers received very liberal discussion.

Dr. A. H. Lindsey presented a child with a skin eruption which all agreed was impetigo contagiosa, and proper treatment was recommended.

Dr. E. H. Morris of Canadian, and Dr. Walter Purviance of Pampa, were elected to membership.

Tarrant County Medical Society met April 7, with 35 members present.

The following papers which are to be read at the State Association meeting in May were presented:

"Some Unusual Endoscopic Experiences," by Dr. Schenck. He exhibited *x*-ray pictures and specimens for each individual case. The paper was discussed by Dr. W. R. Thompson.

"Multiple Myeloma Syndrome in the Child," by Dr. M. E. Gilmore. This was discussed by Drs. Hyde, R. J. White, W. S. Horn, and Chas. F. Clayton. Lantern slides of *x*-ray pictures were shown.

"Fetal Protein Intoxication—The Fundamental Factor in Vomiting of Pregnancy," by Dr. W. S. Horn. This paper was discussed by Drs. G. V. Morton, M. E. Gilmore, S. A. Lundy, E. H. Bursey, and Hodges McKnight.

Van Zandt County Medical Society met April 3, at Canton, with six members and one visitor present.

Dr. F. V. Bryant presented a case of hypertention in a man 67 years of age. He also presented a case of cardiac fibrosis in a man 37 years of age.

Dr. Ben B. Brandon gave a talk on diathermy. All the papers received quite liberal discussion.

The Panhandle District Medical Society met at Amarillo, April 13-14-15, 1925.

The following program was rendered:

Invocation by Rev. G. L. Yates, pastor of the First Baptist Church; President's Annual Address, "The Value of Recording Clinical Data," by Dr. Archie Cole, Pampa; "Appendicitis from a Number of Angles," by Dr. J. C. Anderson, Plainview; "Disorders of the Pituitary Body" (with Lantern Slides), by Dr. Austin F. Leach, Wichita Falls; "The Secondary Anemias of Infants and Children," by Dr. Leslie Moore, Dallas; Chronic Hereditary and Familial Hemolytic Jaundice, with Splenomegaly and Hepatomegaly, Presentation of Cases," by Dr. W. Forrest Dutton, Amarillo; "Purpura Hemorrhagica; A Report of Two Cases," by Dr. Oscar Jenkins, Clarendon; "Duodenal Ulcer," by Dr. Guy Owen, Amarillo; "The Roentgen Diagnosis of Pulmonary Tuberculosis" (with Lantern Slides), by Dr. Walter Van Swearengen, Amarillo; "Abortion," by Dr. A. H. Lindsay, Amarillo; "Puerperal Infection," by Dr. L. E. Petty, Panhandle; "The Mobilization of Anchylosed Joints" (with Lantern Slides), by Dr. Ben L. Schoolfield, Dallas; "Intravenous Medication, Use and Abuse," by Dr. W. Wilson, Memphis; "The Practical Value of the Cystoscope as an Aid to Diagnosis," by Dr. D. S. Marsalis, Amarillo.

Entertainment features included a banquet at the Amarillo Hotel, given on Tuesday for the physicians and their wives, followed by a dance and theatre party. Wednesday noon a luncheon was served at the Amarillo Hotel for physicians and their wives. The ladies were delightfully entertained by the Woman's Auxiliary of the Panhandle District Medical Association.

The following officers were elected: President, Dr. H. L. Wilder, Clarendon; President-Elect, Dr. A. J. Caldwell, Amarillo; Vice-Presidents, Drs. Oscar Jenkins, Clarendon, E. W. Jones, Wellington; Secretary-Treasurer, Dr. J. J. Crume, Amarillo.

The next meeting will be held October 13, 14, at Clarendon, Texas.

Southwestern Texas District Medical Society met January 30, at McAllen, and on the 31st at Brownsville. More than 100 physicians attended the meeting and a splendid program was enjoyed. The following officers were elected: President, Dr. W. E. Nesbitt, San Antonio, Vice-President, Dr. L. L. Griffin, Beeville; Secretary, Dr. L. J. Manhoff, San Antonio.

The Northwestern District Medical Association met at Wichita Falls, April 7-8.

Dr. M. F. Bledsoe, President of the State Medical Association, spoke on the work being done by the State Medical Association, and urged all present to attend the Annual Session at Austin in May. He stated that an unusually attractive scientific program had been prepared for that meeting, as well as very enjoyable entertainment features.

Dr. M. L. Graves of Galveston, spoke on "Medical Education." He traced the growth of medical colleges in the United States from the founding of the first such institution in Philadelphia early in the eighteenth century. He questioned the advisability of lowering the requirements for obtaining an M. D. degree, and said that with such institutions as the Rockefeller and Carnegie foundations, and hospitals and medical centers with large endowments, the profession in America had made such progress that European countries could no longer boast of being the centers of medical learning.

Tuesday evening a banquet was given by the Wichita County Medical Society in honor of the members of the District Association and their wives. A delightful musical program was rendered on this occasion. Judge J. S. Dickey, of Wichita Falls, spoke on "The Lawyer and the Doctor," complimenting the medical profession and mixing a great deal of wit and humor with his speech.

Dr. A. L. Blesh, of Oklahoma City, gave a humorous address entitled "Plastic Surgery on the Texas-Oklahoma Border." He stated that the subject was not of his own choosing, being a more or less unpleasant one because in the "plastic operation," Texas had cut off most of his prospects for oil.

At the Wednesday meeting, Dr. R. L. Hargreaves read a paper on "The Operation for Cystocele in Women Past the Childbearing age."

A resolution was passed requesting the State Medical Association to add Montague, Tarrant and Wise Counties to the Northwestern District Medical Association. Weatherford was chosen as the place for the next meeting in October.

CHANGES OF ADDRESS.

Dr. H. L. Stewart, from Lone Oak to Wills Point.

Dr. W. A. Toland, from El Paso to Houston.

Dr. F. T. Blow, from Buna to Silsbee.

Dr. C. R. Williams, from Wills Point to San Antonio.

Dr. Minnie O. Parrish, from Gainesville to Wichita Falls.

Dr. T. K. Jones, from Amarillo to Henrietta.

DEATHS

Dr. J. W. Cavitt died at his home at Bryan, Texas, February 4, 1925.

Dr. Cavitt was born near Wheelock, Texas, February 26, 1853. He graduated from Roanoke College at Salem, Virginia, and took his degree in medicine from Jefferson Medical College at Philadelphia. Soon after completing his medical education, he married Miss Etta Griffin of Salem, Virginia, and with his bride returned to Texas, and located at Bryan, where he practiced medicine up to the time of his death. He leaves many warm friends who join with his family in mourning his loss. Bryan and Brazos counties in his death lost not only a faithful physician, but also an outstanding citizen.

Dr. Cavitt is survived by his widow, one daughter, Mrs. S. E. Gideon of Austin; a son, J. S. Cavitt of Wilkinsburg, Pennsylvania; one brother, J. D. Cavitt of Marlin; and three sisters, Mrs. Henry Herring of Castleton, Kentucky; Mrs. Mary Washington of Marlin, Texas, and Mrs. W. C. Gilmore of Atlantic, Massachusetts.

Dr. J. H. Chapman of Lufkin, died suddenly of cerebral hemorrhage, March 2, 1925. He had been in ill health for the past four years, but had only recently been confined to his home. He was sitting in front of his fire at his home, when the end came.

Dr. Chapman was born October 2, 1853 at Gutherie, Georgia. He graduated in medicine from the Medical College of Alabama, and received his certificate to practice medicine in Texas, in 1876, at Woodville, Texas. In 1893 he took some post-graduate work at the Memphis Hospital College of Medicine. Dr. Chapman was the oldest practitioner of medicine in Angelina County, being the first physician to locate in the town of Lufkin. He took great pride in the development of his home town, and had seen it grow from a very small village to a thriving town. He was a member of the Methodist Church in which he had been active all his life.

Dr. Chapman was married to Miss Nola Manning, of Homer, Texas, in 1878. After the death of his wife he was married to Miss Maggie Abney, in 1899. His second wife dying also, he was married to Mrs. Jodie Moore, of Lufkin, who survives him. He is also survived by the following children: Mrs. N. E. Frazier, of Groveton; Harmon Chapman, of Hemphill; Jamie Chapman, of Cove, Arkansas; Hershal Chapman and Miss Martha Chapman, of Lufkin, and two step-children, Mrs. R. H. Glass and Mrs. Bayne Satterfield, both of Lufkin.

Dr. Henry Clay of Dallas, died at Baylor Hospital, April 6, 1925.

Dr. Clay received his preliminary education at Moody, and later attended Baylor University. He

DR. HENRY CLAY.

graduated from the Medical Department of Baylor University at Dallas, in 1909. He practiced medicine for a time at Tyler, Texas, moving then to Dallas, where he had practiced up to the time of his death. Dr. Clay had been a member of his County Medical Society and of the State Medical Association ever since he received his degree in medicine. During the World War he was commissioned in the Medical Corps of the Army and served through the war. He was under orders to sail for overseas when the Armistice was signed. He was held in great esteem by those who knew him well, and at the time of his death was President of the Medical Department Alumni of Baylor University.

He was married to Miss Lottie Ray, of Tyler, May 3, 1903, to which union was born one daughter, Miss Evelyn Clay of Dallas. He is survived by his wife and daughter, and by his mother, Mrs. Nannie Clay of Moody, Texas, and three brothers, C. L. Clay of Waco, A. J. Clay of Moody, and R. W. Clay of Dallas.

Dr. J. F. Owens of Plainview, died April 8, 1925, at the Plainview Sanitarium, after a brief illness.

Dr. Owens was born January 27, 1869, at Bottsford, Ga. He received his preliminary education in the common schools of his community and took his

DR. J. F. OWENS.

degree in medicine from the Georgia College of Eclectic Medicine and Surgery, Atlanta, Ga., 1907.

After practicing in his native State for eighteen years, he went to New Mexico, where he remained only a short while and moved to Plainview, where he practiced up to the time of his death. He was always active in his County Medical Society and in the State Medical Association, and in his untimely death organized medicine has lost a most valiant champion. Dr. Owens was at one time president of the Hale-Floyd-Swisher-Briscoe County Medical Society. Besides his activities in medical circles, he was a public-spirited citizen and always ready to do what he could for his community. He was well known as a public speaker, and one of his addresses made before his District Medical Society appeared in the March number of the JOURNAL. He was a member of

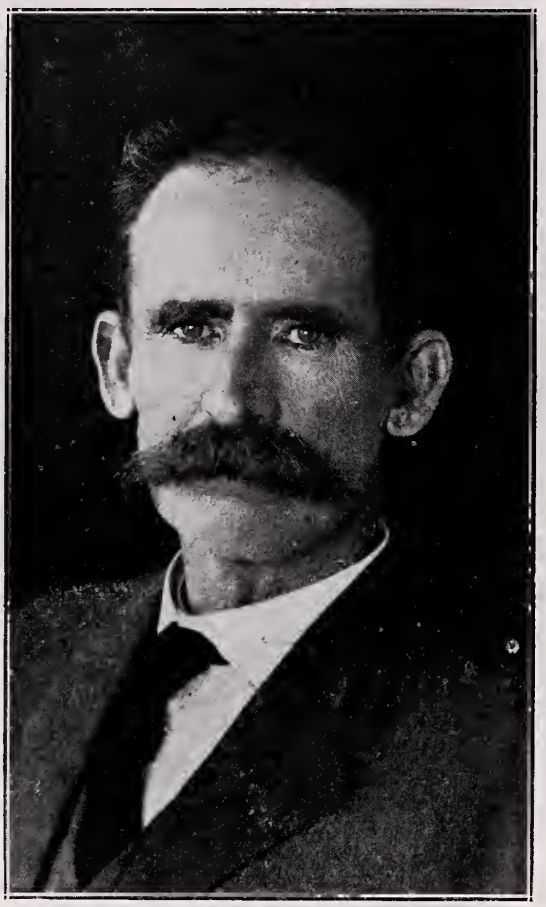
the Board of Stewards of the First Methodist Church, and belonged to the Kiwanis Club, over which he had presided just a few days prior to his death.

Dr. Owens married Miss Minnie Hyden Taylor, at Hahira, Georgia, on November 15, 1891.

He is survived by his father and mother, Mr. and Mrs. J. A. Owens, Adel, Ga., and four children, E. G., Jamie, Clarence and Cristelle of Plainview; two sisters, Mrs. L. P. Booth, Adel, Ga., Mrs. J. R. Morris, Thomasville, Ga., and four brothers, W. H. Owens of Hahira, Ga., G. B. Owens of Tampa, Fla., Oscar Owens of Fort Lauderdale, Fla., and Sam Owens of Wachula, Fla.

Dr. B. A. Swinney died at his home at Newton, September 12, 1924, after a prolonged illness.

Dr. Swinney was born December 9, 1855, at Magnolia Springs, Jasper County, Texas. He received his degree in medicine from the Medical College of Alabama, in 1888, and returned to his home county to practice. He had practiced medicine in Jasper and Newton counties for 36 years. He was a member of the A. M. A. and of his County Medical Society and the State Medical Association. He always took a great interest in organized medicine, and served for 14 years as President of the Jasper-Newton County Medical Society. Not only was he prominent in medical circles, but he was one of Newton County's most substantial citizens, being vice-president of the Newton County State Bank at the time of his death. He was an Elk and a Knight Templar. The Masonic lodge conducted the funeral services at the grave, many visiting Masons taking part in the impressive ceremony.



DR. B. A. SWINNEY.

Dr. Swinney is survived by his widow, and the following children and grandchildren: Mrs. D. H. Trotti and six children of McAllen, Dr. B. A. Swinney, Jr., of Breckenridge, Mrs. E. A. Powell and two children, Mrs. L. D. Mattox and three children, Mrs. Evie Parry and three children, and Buck Swinney, all of Newton.

Dr. George T. Thomas, son of Dr. G. T. Thomas, Sr., and Mrs. Mattie Thomas, of Rogers, Texas, died suddenly at his home in Amarillo, March 18, 1925. Dr. Thomas was found dead in his bed early in the morning. He had suffered from valvular heart disease for several years.

Dr. Thomas was born May 11, 1882 at Rogers, Texas. He attended the public schools at the place of his birth, and high school at Salado. He took his first year in medicine at Galveston, and later attended the Fort Worth Medical School, from which he graduated. After graduating, he was assistant city physician at Fort Worth for a short time, from which place he went to Amarillo, where he had practiced for the past seventeen years. He was prominent both in medical circles and in civic affairs. He had for many years been a member of Potter County Medical Society, and of the State and American Medical Associations, and was a Fellow of the American College of Surgeons. He was also chairman of the executive committee of St. Anthony's Sanitarium, and president of the attending staff of Northwest Texas Hospital. He was a member of the Central Presbyterian Church, a Shriner, a Woodman of the World, Vice-commander of Hanson Post, American Legion, chairman of the entertainment committee of the Board of City Development, and a Rotarian. Amarillo Commandery No. 48 furnished a Knight Templar escort for his funeral.

DR. GEORGE T. THOMAS.

Dr. Thomas was married to Miss Winnefred Beller, September 7, 1903, and to this union were born three daughters. Mrs. Thomas preceded her husband in death in the fall of 1924. Dr. Thomas is survived by his three daughters, Misses Georgia, Dorothy and Winnefred and by his mother, two sisters and one brother, W. B. Thomas of Rogers, Texas.

Dr. Walter J. Crook died at his home, 614 North Ewing Ave., Dallas, Texas, January 27, 1925, following a stroke of apoplexy in his office shortly before noon.

Dr. Crook was born at Paris, Texas, May 11, 1874. He was educated in the public schools at Paris and in Dr. Gowdy's Academy. He received his degree in medicine from the Medical Department of the University of Texas at Galveston in 1896. For twenty-two years he practiced medicine at Cooper, Delta County, Texas, after which he removed to Dallas, where he practiced up to the time of his death. He had long been a faithful and active member of Delta and Dallas County Medical Societies, and of the State Medical Association. He was a member of the Oak Cliff Masonic Lodge, and a steward in the Oak Cliff Methodist Church. He was greatly beloved by all who knew him and enjoyed the full confidence of his fellow practitioners and patients, by whom he will be greatly missed.

Dr. Crook was married to Miss Tennie Wilson in 1896, and to this union were born two sons. He is survived by his wife, two sons, J. Hobson and Wilson W. Crook of Dallas; four sisters, Mrs. J. Schultz of Mount Pleasant, Mrs. Fred Wynn of Dalhart, Mrs. Ed Smith of Ada, Okla., and Mrs. Geo. Coleman of Paris, and three brothers, J. W., C. O. and M. D. Crook of Paris.

Dr. William McKindry Shankle died suddenly at his home in Chilton, Texas, March 11, 1925. Death came quite peacefully while he was asleep and was thought to be due to myocarditis.

Dr. Shankle was born at Commerce, Georgia, September 22, 1854. He received his preliminary education in the schools of his home town, and graduated in medicine from the University of Georgia at Augusta, in 1881, and took a postgraduate medical course at the New York Polyclinic, in 1890. He came to Texas and located at Chilton forty-two years ago. He had long been a valued member of Falls County Medical Society, and of the State and American Medical Associations. During the World War he served on the draft board and aided in the selection of doctors in his county for commission in the Medical Corps. It was said of him by one who knew him well that, "while active and prominent as a citizen of the community to which he devoted so many years of his life, Dr. Shankle found the fullest expression of his sterling character in his work as a physician. To the poor as well as to the rich he administered alike, gaining the esteem of friends in all walks of life."

Dr. Shankle was married in 1886 to Miss Mattie Lorena Bloxom, by whom he is survived, together with one son, Will Edd Shankle.

Dr. H. L. Willett died of Bright's disease at his home at Newton, Texas, on August 7, 1924.

He was born January 22, 1875, in Newton County, Texas. He attended the Louisville Medical College, Louisville, Ky., and the Medical Department of Fort Worth University. He had practiced medicine in Newton for 18 years at the time of his death. He was a member of the Methodist Church.

Dr. Willett is survived by his widow and three children.

Dr. W. M. Young of Dallas, died March 21, 1925, at St. Paul's Sanitarium, after a lingering illness of several months.

Dr. Young was born near Aberdeen, Mississippi, on January 25, 1871. He received his M. D. degree from the Medical Department of Vanderbilt University in 1894. He practiced in partnership with his uncle, Dr. J. H. Young, near Itasca, until 1900, when he moved to Dallas. He was always very active in his county medical society and served as President of the Dallas County Medical Society in 1921. At the time of his death, he was a member of the City-

DR. W. M. YOUNG.

County Hospital Board, the University Club and the Dallas Athletic Club.

He was married to Miss Florence A. McKenzie in 1902.

Dr. Young will be greatly missed by his many friends, both among the laity and the profession.

BOOK NOTES

Safeguarding Children's Nerves. By James J. Walsh, M. D., Ph. D., Sc. D., Professor of Physiological Psychology, Cathedral College, New York, and John A. Foote, M. D., Professor of Diseases of Children, Georgetown University Medical School, Washington, D. C., with Foreword by Honorable Herbert Hoover. 12 mo., cloth, 272 pages. L. B. Lippincott Company, Philadelphia, Pa.

This common sense book is written by physicians who have made a special study of their subject. The book is divided into 18 chapters as follows: I, The Child in the World of Today; II, The Nervous Child;

III, The Spoiled Child; IV, Misunderstood and Different Children; V, The Bogy of Heredity; VI, Vital Foods and the Nervous System; VII, Nursing and the Nurse; VIII, Rest and Fatigue; IX, Recreation in Theory and in Practice; X, Discipline and the Nervous Child; XI, Nerves and the Sick Child; XII, Habits, Good and Bad; XIII, Some Abnormal Habits of Childhood; XIV, Habit Spasms-Tics; XV, How Dreads and Dislikes Are Formed; XVI, Backward Children; XVII, Defective Children; XVIII, Medical Paths and By-Paths. This is just such a book as many parents should read. It is written in such language that it is entirely suitable for both the profession and the laity. There is no question but that many nervous disorders originate in childhood from faulty environment as well as heredity.

Methods in Medicine. The Manual of the Medical Service of George Dock, M. D., Sc. D., formerly Professor of Medicine, Washington University School of Medicine; formerly Physician-in-Chief Robert A. Barnes Hospital, St. Louis. By George R. Herrmann, M. D., Ph. D., Instructor in Medicine, University of Michigan; formerly Assistant in Medicine, Washington University; formerly Resident Physician Robert A. Barnes Hospital, St. Louis. 8vo., cloth, 521 pages, illustrated. C. V. Mosby Company, St. Louis, 1924.

As the author states in the Preface, and as Dr. Dock states in the Introduction, this book is an outgrowth of a manual prepared for the instruction and guidance of resident physicians in the Barnes Hospital. The book takes up hospital organization and management with special reference to the resident physicians, internes and visiting staff; the duties of each are clearly defined and the rules of the different services and departments laid down. Following this is a detailed description of the various common diagnostic laboratory and clinical tests including many of the more recent laboratory methods. Specimens of forms used in the taking of case histories, bed-side charts, hospital transfers, *x*-ray and laboratory reports as used at Barnes Hospital ar also reprinted in the back of the volume. Although this book was especially written for use at the Washington University Medical School, and Barnes Hospital, the general scheme is applicable to any hospital and may be used as a basis for the preparation of similar instructions in any hospital.

The book is very carefully written and the laboratory and clinical methods are painstakingly selected and the description of each test or method although brief, is accurate and readily understandable. The book may easily be used by the practicing physician or the student of medicine as a laboratory guide of clinical medicine.

Practical Electrotherapeutics and Diathermy. By G. Betton Massey, M. D., Fellow and Former President, American Electrotherapeutic Association, etc.; Author of "Electricity in the Diseases of Women;" "Conservative Gynecology and Electrotherapeutics," etc. 8vo., cloth, 401 pages, 157 illustrations. The Macmillan Company, New York, 1924.

This valuable work on a very difficult subject is one of the most complete and authoritative works on Electrotherapeutics that we have seen. The book begins with an introductory chapter on "The Electric Nature of Matter." In this chapter the nature of the electron, the atom and the ion are discussed. Next is taken up the various kinds of electric currents and the method of their production. Following this is a chapter on the chemical effects within the tissues, of such currents. Ionization, high frequency currents and static electricity are given detailed mention. The remainder of the volume, consisting of about one-half of its bulk, is divided into nine chapters as follows: Electricity in Industrial and Reconstructive Surgery; Electricity in Oncology; Electricity in Gynecology; Electricity in Disorders of the Abdominal Organs; Electricity in Urology and Proctology; Electricity in Dermatology; Electricity in Diseases of the Nose and Throat; Electricity in Ophthalmology and Electricity in Diseases of the Nervous System. For those who are interested in this fascinating department of therapeutics, we know of no volume on the subject that will prove more interesting than Dr. Massey's treatise.

Lectures on Pathology. By Ludwig Aschoff, M. D., Professor of Pathologic Anatomy, University of Freiburg, Germany. 8vo., cloth, 365 pages, 35 illustrations. Price $5. Paul B. Hoeber, Inc., New York, 1924.

Professor Aschoff needs no introduction to the medical profession; his reputation as a pathologist is world-wide. This volume consists of fourteen lectures which he delivered in a coast to coast tour of the United States in 1924, addressing many notable medical gatherings. The lectures are on the following subjects: Chapter I, Reticulo-Endothelial System; II, The Pathogenesis of Human Pulmonary Consumption; III, Concept of Inflammation; IX, Pathological Fatty Changes; V, The Normal and Pathological Morphology of the Suprarenals; VI, Atherosclerosis; VII, Ovulation and Menstruation; VIII, The Orthology and Pathology of the Extrahepatic Bile Passages; IX, The Origin of Gallstones; X, The Site of Formation of Bile Pigment; XI, Thrombosis; XII, The Relation of Mucosal Erosions to the Development of Ulcer of the Stomach; XIII, The Goiter Problem, Especially the Goiter of Puberty—A Morphological Study; XIV, Renal Secretion and Renal Diseases. These lectures are remarkable for the systematic and thorough manner in which each subject is discussed, and are of value not only to the pathologist but are also intensely interesting to the practitioner of medicine, giving as they do an outline of the present status of our knowledge concerning each subject under discussion.

Treatment of Common Disorders of Digestion, a Handbook for Physicians and Students. By John L. Kantor, Ph. D., M. D., Chief in Gastrointestinal Diseases, Vanderbilt Clinic, Columbia University, etc. 8vo., cloth, 245 pages, 64 illustrations. Price $4.75 net. E. V. Mosby Company, St. Louis, 1924.

As might be expected from one of Dr. Kantour's experience in the treatment of gastrointestinal diseases, this volume is a very clear, concise and authoritative dissertation on the common disorders of digestion. The illustrations are mostly from *x*-ray plates taken after barium meals and are among the best we have seen. This collection of radiograms alone, is well worth the price of the book. The author states in his preface that the book "is intended to serve as a guide in the treatment of those forms of digestive disorders most commonly met with in the practice of medicine." The book is divided into fifteen chapters. The first chapter entitled "General Principles and Methods," describes the various diagnostic and therapeutic methods used in the treatment of gastrointestinal diseases. The subsequent chapters deal with common digestive disorders in greater detail, outlining the diagnosis and method of treatment in each. Especially valuable is the concluding chapter on the "Treatment of Headaches Associated with Indigestion."

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Texas State Journal of Medicine

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6. C. P. YEAGER, *Kingsville*
7. JOE GILBERT, *Austin*
8. O. S. MCMULLEN, *Victoria*
9. W. B. THORNING, *Houston*
10. D. S. WIER, *Beaumont*
11. R. H. MCLEOD, *Palestine*
12. N. D. BUIE, *Marlin*
13. J. H. CATON, *Eastland*
14. A. B. SMALL, *Dallas*
15. J. K. SMITH, *Texarkana*

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Dr. Charles McDaniel Rosser, the Fifty-eighth President of the State Medical Association of Texas, was born in Cuthbert, Georgia, December 22, 1862. His father, the Reverend M. F. Rosser, was a well known Methodist Minister, and during the Civil War served as Chaplain of the 41st Georgia Regiment. The family moved to Texas in 1865, locating in Camp County.

Dr. Rosser received his preliminary education in the neighborhood schools, finishing academic work in the East Texas Academic Institute, under the noted teacher, John M. Richardson. He received his medical education in the University of Louisville, graduating with the degree of M. D. in 1888. Before taking up the study of medicine he taught school in East Texas for several years. He practiced medicine for a time in Waxahachie, removing to Dallas in 1885. He served as city health officer in the latter city for a term, and in 1895 was appointed superintendent of the North Texas Hospital for the Insane, at Terrell, by the then Governor and later U. S. Senator, Chas. A. Culberson. He returned to private practice in Dallas in 1897, where he has since remained in continuous practice. He has been confining his work to surgery for many years, and is at present in active practice, associated with his son, Dr. Curtice Rosser.

In 1897, Dr. Rosser was married to Miss Elma Curtice of Eminence, Kentucky, a member of a well known family of that well known State. There are two children, Dr. Curtice Rosser of Dallas, and Mrs. George McBlair of New York.

Dr. Rosser has been an earnest and active student of medicine from the beginning of his career, and early appreciated the connection between scientific medicine and organized medicine, so called. It was his conception that the best there is in medicine should go to the public and be understood and appreciated by the public, and he has worked steadily to the end that the medical profession would assume this obligation and see to it that this service is rendered sanely, forcefully and without embarrassment. Notwithstanding that he has served the State Medical Association as vice-president (1897), his county society as president (1923), The Southern Surgical Association as treasurer (1904-1907) and the Medical Association of the Southwest as president (1907), his best service has been rendered as committeeman and special envoy.

He established the first medical college in Dallas, which eventually came to be Baylor University College of Medicine, a teaching institution of the first class, and for twenty years he has served this institution as Professor of Clinical Surgery. Many of the leading surgeons of the State have had their early training in surgery under his direction. He was the founder of the Good Samaritan Hospital, which might be said to be the predecessor of the present magnificent Baptist Sanitarium. It was located on the grounds now occupied by the latter institution. For three years he was chairman of the committee appointed by his county society to secure for the profession of Dallas a building devoted exclusively to the art and

science of medicine, the efforts of which committee resulted in the erection of the present magnificent "Medical Arts Building" in Dallas. He is a Fellow of the American Medical Association and of the American College of Surgeons, and a member of all of the recognized medical organizations to which he is eligible.

Dr. Rosser is a forceful writer and an eloquent speaker. His contributions to medical literature are too numerous to mention. Many of his articles have been accepted as the last word on the subjects under discussion. He has delivered innumerable addresses on a wide variety of subjects and has never failed to attract attention, not only by the logic of his discourse, but by his pleasing personal effort as a speaker. During the World War he was assigned to duty as a speaker by the then Secretary of the Treasury, Mr. Wm. G. McAdoo, and occupied many pulpits throughout the State, delivering many discourses on doctrines of loyalty, thrift and saving.

When the Legislative Committee of the State Medical Association had its back to the wall, fighting efforts of the chiropractors to weaken the Medical Practice Act by the enactment of a law creating a board of examiners for that cult, Dr. Rosser was assigned the duty of conducting a whirlwind publicity and educational campaign, as a counter offensive. In spite of the fact that there was no time available for preparation, he gathered about him a few of the faithful and without lost motion launched into the attack. In a few days time his campaign had attracted such notice that the political situation was all but reversed. It might be said, parenthetically, that this was the beginning of the publicity and educational campaign of last year and the campaign of enforcement this year.

Not alone in the field of medicine does Dr. Rosser stand out as a distinctive personality. He has been identified with political movements and civic crusades for many years. He has been considered for political preferment in high places, and has been relied upon by both church and state for support of vital reform movements. He is a member of numerous civic organizations in his home city, including the University Club and the Country Club, and is a consistent member of the Methodist Church.

The purpose of this discussion is to convey to the reader who is not acquainted with our President, something of his character and personality. Perhaps we can best do this by a few quotations: President Scott in presenting Dr. Rosser to the General Meeting, at the time of his election to the office of President-Elect, said, "A man who has been more criticized for his aggressive work with the public, for the advancement and recognition of high ethical and scientific standards, than any other man I have known who has survived; he has been severely criticised for doing the very thing personally for which we are now taxing ourselves, and to the accomplishment of which we are devoting our best energies."

Dr. C. C. Selecman, President of the Southern Methodist University, Dallas, once said: "Dr. Rosser's success is due to the fact that he has had a religious and theological background. We know him as a noble Christian physician, a man of superior intelligence, great skill as a surgeon, a splendid speaker, great capacity for friendship and of untiring energy when working in behalf of a good cause. He is a man of uncompromising integrity, and if necessary would become a martyr to his ideals."

The Reverend J. B. Cranfill has said: "This man, Dr. Rosser, is responsible for the creation of all of the Baptist medical institutions in this city. He is a fine citizen, a great scientist, a splendid gentleman and a surgeon of skill and ability. He is intuitionally a man of medical ingenuity."

The Honorable Thos. B. Love said: "Dr. Rosser is a superb exemplar of the considerate and uncompromising friend. If you are fortunate in his friendship he does not wait for you to tell him your troubles, but when they are greatest and you are in the most distress, he somehow finds it out and arises out of the ground by your side."

There is much more to the same effect, but these four short quotations are sufficient for present purposes. Those who know Dr. Rosser have no doubt concerning the success of his administration, notwithstanding the

insistent demands that are being made for serious and extensive endeavors. It is a good omen that warring factions in the House of Delegates at Austin came to agreement and mutual kindly feeling under the first official acts of his leadership. We predict for him the hearty support of the medical profession of Texas, and hope and feel that his administration will accomplish all that is expected of it.

The Austin Session in many respects was one of the most notable gatherings the Association has ever held. It was notable, mainly because of the important transactions of the House of Delegates, but the meeting otherwise was surprisingly and pleasingly successful. It had been anticipated that hotel accommodations would be inadequate, which probably accounted for the comparatively small attendance, but so far as we could learn there was no material dissatisfaction in that regard. The citizens of Austin very kindly rallied to the support of the county society, opening their homes to visiting physicians who were not able to secure accommodations at the principal hotels. The inevitable complaint of overcharge, or deficiency in service, was heard, but to no greater extent than has been the case elsewhere, if, indeed, there was as much complaint in that particular as there has been heretofore. We feel that the Committee on Arrangements is to be congratulated on this feature of the meeting, whatever else we may feel inclined to compliment them for.

The attendance was 900, not counting visitors or guests, or the Woman's Auxiliary, which latter is usually counted among the "Visitors." There were some 400 members of the Woman's Auxiliary present. The attendance last year at San Antonio was 1,017 members and 500 visitors. The largest attendance ever registered was 1,204, at Dallas, in 1917, and the next largest 1,123, in Fort Worth, in 1923.

The cordial reception extended us by not only the local profession but the citizenship generally, was notable. We frequently heard appreciative remarks on that feature of the meeting. The social functions were well conceived and gave much satisfaction. Of course, these were mainly for the visitors, our members having little time for such enterprises. The President's Reception was a brilliant affair, and there can be no doubt but a good time was had by all.

The general meetings were, as usual, not well attended. The opening meeting was held in the Senate Chamber of the State Capitol, and the attendance there was quite satisfactory, but the other two meetings were all but neglected. It is unfortunate that our members will not interest themselves in the general meetings. They are devised for the entertainment and protection of the membership generally, and about the only members who attend are those who have already been working overtime in the House of Delegates. There is always something of value in each of these meetings, either of a scientific, economic or political nature. The Address of the President, delivered during the Opening Session, was well received and worthy of comment. It will be noted elsewhere in this number of the JOURNAL. The symposium on Cancer, delivered at the general meeting on the second day, was one of the most instructive events of its kind ever provided by our Association. Every thinking layman in the City of Austin should have heard these talks, and most certainly every doctor should have heard them.

It is our understanding that the meetings of the scientific sections were entirely worth while, and that section officers succeeded in keeping faith with the program admirably, a thing not so easy to do at that. The limitation of the number of papers to be presented through each scientific section seems to be working out satisfactorily. Evidence is to the effect that it will be hard to handle more papers than at present allowed, and that by keeping eternally at it, the number of papers allowed can be handled satisfactorily. There was some effort this year at coördination between the sections, in connection with the Committee on Scientific Work and the Committee on Scientific Exhibits, and while the desired end has not been attained it is clear that much may be accomplished by such a plan, which plan is provided for in the new By-Laws. There were no scientific exhibits this

year, despite the very strenuous endeavors of the committee having that matter in charge. It costs money to move specimens around and arrange exhibits, and it seems that no one was willing to make the effort and spend the money in this cause at this time. The Trustees refused to make an appropriation for this purpose because of lack of definite plans for coördination, but intimated that when such plans were forthcoming modest appropriations for the purpose would be made. The arrangements of meeting places for the sections were good. They were divided between the two principal hotels, less than one block apart, with one meeting place in the Odd Fellows' Hall, midway between the two. The House of Delegates met in the Elks' Club, two blocks away.

The Memorial Exercises were well attended and a splendid program had been prepared. The music was unusually good, and the Memorial Address, delivered by the chairman of the Committee, Dr. D. M. Higgins of Gainesville, was particularly appealing. This address will be found elsewhere in this number of the JOURNAL. A list of the deceased members and nonmembers, will be found among the transactions. It is hoped that these lists will be checked and that any omissions will be called to the attention of the State Secretary. It seems impossible to get a correct list of this sort. This fact has before been a matter of comment. While the duty of reporting deaths is that of the county society secretary, the obligation is sufficiently widespread to include all of us. A card calling the attention of the Secretary to the fact that a worthy physician has passed to his reward will be sufficient to start an investigation which will at least result in the inclusion of his name in one of the lists above referred to.

As per custom, the pulpits of the city were occupied by visiting doctors on the Sunday preceding the Opening Meeting. The addresses were along approved public health lines, and on the whole were well received. The speakers and the pulpits occupied, were as follows:

Dr. M. F. Bledsoe, Port Arthur, First Baptist Church: "How the Usefulness of the Medical Profession to the Public Can Be Increased;" Dr. W. B. Russ, San Antonio, Central Christian Church: "The Human Highway;" Dr. C. M. Rosser, Dallas, First Presbyterian Church; Dr. John O. McReynolds, Dallas, First Cumberland Presbyterian Church: "My People Are Destroyed for Lack of Knowledge;" Dr. S. E. Thompson, Kerrville, St. David's Episcopal Church.

The organizations meeting by custom on the Monday preceding our opening meeting, report good attendance and satisfactory programs. It is expected that detailed reports of these meetings will be furnished in time for inclusion in this number of the JOURNAL.

The following invited guests honored us with their presence: Dr. C. A. Kofoid, Berkeley, California; Dr. B. H. Orndoff and Mr. J. N. Redfern of Chicago; Prof. Geo. P. Grout, College Station; Dr. W. C. Finnoff, Denver; Dr. C. C. Browning, Los Angeles; Dr. Geo. A. Hendon, Louisville; Drs. W. C. Campbell, E. E. Francis and Mr. J. E. Le Prince of Memphis, Tenn.; Drs. Oscar Dowling and Lucian LeDoux of New Orleans; Mr. Leslie C. Frank, Montgomery, Ala.; Messrs. Homer N. Calver and Arthur W. Strawson of New York City; Drs. L. A. Buie and R. D. Carman of Rochester, Minn.; Dr. S. C. Barrow, Shreveport, La.; Mrs. Elizabeth Vaughan, St. Louis; Dr. Kenneth Maxcy, Washington, D. C.; Mr. B. A. McGlachlin, Port Arthur; Prof. W. A. Buice, Waco; J. M. Murphy, D. D. S., Temple; Messrs. E. G. Eggert and V. M. Ehlers, and Dr. L. H. Martin, Austin; Mr. R. E. Tarbett, El Paso; N. F. Williams, D. V. S., Fort Worth, and Dr. T. J. Crowe, Dallas.

On the whole, we are pleased that we met with the brethren in Austin; we are grateful for the reception accorded us, and will come again.

The Transactions of the Austin Session are published in this number of the JOURNAL, beginning on page 63. They are of considerable interest and will be found easy to read. They are lengthy, but that could not be helped. The prevailing opinion is that our transactions, including the reports of officers and committees, are tiresome reading matter. Whatever may be the case ordinarily, that certainly is not true this time. Because of the importance of the enactments of the House of Delegates, it has been deemed advisable to give rather fully the debate occurring on each subject. Only duplications, redundant statements and discussions beside the point, have been omitted from the published proceedings (the *verbatim* report is on file in the office of the State Secretary). A close reading of the transactions will prove enlightening, entertaining and even amusing. It costs money to print the transactions thus fully, and we trust the expenditure will be justified. We will briefly refer to the most important items.

From an Organization Standpoint it appears that we are doing nicely, despite rumors to the contrary. The membership at

the time the report of the Secretary was made (June 6), was 3,237, a loss of 380 over relatively the same period the year before. This is less than a 9 per cent loss. In view of the expressions of dissatisfaction over the increased dues that had come to our ears, this was a surprising showing. It but demonstrates the solidarity of our organization. While there was this slight loss in membership, it is a fact that there were fewer societies not reporting at all than at any time before. The Councilors reported some difficulties from their standpoint, but on the whole they found conditions better than they had expected. The ethical status of the organization, according to the report of the Board of Councilors, is satisfactory. Interest in the organization can usually be estimated by the representation in the House of Delegates. This year 89 societies were represented by 96 delegates, and there were 33 *ex-officio* members present, which made a total membership in the House of 129. Last year 91 county societies were represented by 98 delegates, and 29 *ex-officio* members were in attendance, making a total House membership of 127. And it may be said, parenthetically, that practically all of the members of the House were present at nearly every meeting. There was something for them to do.

Financially, the Association is doing well, in spite of the considerable expenditures that have been made to cover increased cost of extended activities. The report of the Trustees and the President's Message, should be read in this connection. For the first time an effort has been made to get the Association on a strict budget basis. As a matter of fact, operations have virtually been on a budget basis, but the budget was made at various times during the year, as the need for expenditure and the amount of income became evident. Because of the greatly increased scope of our work, and by common consent, it was decided to endeavor at the beginning of the year to determine what we could afford to spend in each department and appropriate accordingly. In other words, the effort is to be made to cut the suit in accordance with the cloth. Our total assets were placed by the Auditor at $81,141.17. This amount includes, as a matter of course, the income from increased dues, more than half of which cannot be said to be ours until the end of the fiscal year approaches. Our actual surplus at the time of the report was $38,711.42. The $42,429.75 remaining represents unearned surplus, and we will earn one-twelfth of it each month. The Trustees state that it is not their purpose to endeavor to assemble a large surplus simply to have a surplus. The endeavor has been, rather, to first accumulate enough money to make the future safe, and then save a moderate amount each year, as a matter of good business procedure and in order that there may be an income from other sources than dues and subscriptions to the JOURNAL. It was pointed out that our surplus is earning its keep in interest, and that if we had enough surplus we might operate without assessing our members anything at all. As an evidence of their contention that our surplus has been accumulated without curtailing the activities of the Association, the Trustees pointed to the fact that the average annual increment has been less than $2,000.00 since the present financial policies of the Association were decided upon. The interest on our money last year amounted to $3,306.23. That is approximately $1.00 per member. Had we five times as much surplus, we need not have raised our dues. The JOURNAL made a profit last year of $56.00, but it had to collect $264.50 interest on its money before it could do that. The Association Fund lost $2,141.06, in spite of $991.87 received from the interest account. Medical Defense earned $958.81 in interest and made a profit of $979.11, including this amount. It is well to consider these matters. Money has to be made and saved. It does not come miraculously.

The President and the Board of Trustees made budgets independently of each other. They came to approximately the same conclusion, namely, that the Association could operate satisfactorily on an annual per capita assessment of $10.00. This is allowing the JOURNAL sufficient money to publish several district society papers each year, in addition to the papers presented through the scientific sections, and those accepted for publication for special reasons. It also allows for the permanent employment of the present office force. It allows a nominal sum for publicity and educational campaigns, legal service and law enforcement. It was anticipated that any increase in activities along this line for this year may be cared for from an unappropriated surplus of $7,500.00, which resulted from the increased dues for the present year. It will be remembered, in this connection, that the $15.00 dues for the present year, plus the voluntary subscriptions for the publicity and educational campaign made the year before, had to pay for a two years' campaign. This figures out approximately $11.00 per member per year, which amount permitted the Trustees to pay back to another fund the sum of $7,500.00 borrowed at the beginning of the campaign, and to set aside another $7,500.00 for use as the activities of the Association may require.

Dues Were Fixed at $10.00, following an extended, quite free and frank discussion. The Harris County Medical Society by petition sought a return to the $5.00 dues in force before the raise to $15.00, made at San Antonio last year. This petition was based on the alleged failure of the publicity and educational campaign to produce results, and the undesirability of continuing this campaign as heretofore and as planned for the future. While these two items were discussed separately and decided separately, it was understood that they were closely connected. In other words, had the House of Delegates decided that the publicity campaign had been a failure, the dues would have been reduced accordingly. On the other hand, should the dues be reduced it might or might not be argued that the campaign had been a failure. The debate was rather interesting and at times quite warm. Every opportunity was allowed each member to express himself. It seemed to be the consensus of opinion that these matters could not be considered settled until they had been settled right. It was first decided that the publicity campaign had been a success, and then it was decided that the Association could function satisfactorily in the future upon a per capita assessment of $10.00. In view of the fact that some delegates had been instructed, the vote on dues was made of record and will be found on page 122. It will be noted that the House of Delegates refused to return to the $5.00 assessment by a vote of 88 to 17. In this connection, it should be remembered that the change in dues will not be effective until 1926, and that dues for the current year remain as they were, namely, $15.00.

The Revision of the Constitution and By-Laws which we have been endeavoring to perfect for two years, was finally accomplished at this meeting. We will not, at this time, undertake to discuss the several important and radical changes made, because of lack of space. We hope to do so, however, in an early number of the JOURNAL. Suffice it to say at this time, that this instrument is undoubtedly most complete, and it is quite likely the most practicable set of laws ever devised for an organization such as ours. The State Association and its constituent bodies are engaged in several enterprises that may lay them liable to damage suits, and when an unincorporated body is sued, recovery may be had against any member or group of members. For that reason it has seemed desirable to have the State Association and its component societies incorporated under the laws of the State of Texas. The act of incorporation seems to remove the county societies from the jurisdiction of the State Association, and does actually place in the hands of our Board of Trustees the responsibility of control of the State organization. The new Constitution and By-Laws comes as near to composing this situation as it is legally possible to come, and on the whole presents a workable, understandable plan of control. Expert legal opinion has been secured on this point and to this effect.

For the first time in the history of the Association an honorary membership has been created. Hereafter county societies may nominate to the House of Delegates physicians residing within their jurisdiction who have for any laudable reason curtailed their medical activities to the point where they may perhaps not be justified in continuing active membership, or physicians who have contributed so notably to the cause of medicine as to call for some distinction of this sort, and if the House of Delegates elects such as these to honorary membership, they will have the same prerogatives as other members, and will not be required to pay dues.

The Council on Legislation and Public Instruction was abolished and the President furnished with an advisory council, consisting of the officers of the Association (including the Vice-Presidents), the Board of Trustees, Board of Councilors and the Legislative Committee, which council is to decide with him the many important matters coming up for consideration, and carry on the work heretofore assigned to the Council on Legislation and Public Instruction.

The Committee on Scientific Work has been made a "Council," with an overlapping membership, and closer coördination of the scientific work of the Association will be brought about by this body, which can now adopt a continuing policy.

While the Trustees continue to exercise final authority in all matters of finance, as they must do so long as we enjoy the protection of the corporate laws of the State of Texas, the By-Laws provide that the several departments of the Association shall submit budgets to the Board of Trustees, and the Board of Trustees shall prepare a tentative budget for the consideration of the House of Delegates. It is felt that this system will permit the House of Delegates to decide the scope of its activities and indicate clearly the money it would have spent in carrying them out. The Trustees would then know that demands for funds had been made in the full knowledge of both income and prospective expenditure. There will never be a perfect system of control, one that will please everybody. It would seem that this plan will come

as near doing so as any that could be perfected.

The captions of the scientific sections have been changed somewhat, tending toward simplicity.

The demand for the election of councilors, either by district societies or upon their nomination, was partially met by the adoption of a resolution stating that it is the policy of the Association to elect councilors upon the nomination of delegates from their respective districts.

The By-Laws permit the House of Delegates to meet on the day prior to the convening of the Annual Session, and remain in session as long as it desires, and a resolution was adopted providing that the House of Delegates convene next year one day in advance of the opening of the Annual Session.

In studying the Constitution and By-Laws, which are included in the original report of the committee, the supplementary report of the committee must be taken into consideration.

The Legislative and Publicity Work of the Association is set out in full in the report of the Council on Legislation and Public Instruction. While this is a rather lengthy report it is interesting and not hard to read. It concisely and fairly discusses the publicity and educational campaign, gives a full report of the efforts of the chiropractors to secure legislation during the last session of the Legislature, and discusses briefly each public health measure introduced. This report also discusses the legislation enacted covering the care and treatment of the insane, which part of the report should be studied in connection with the report of the special committee on that subject appointed last year and headed by Dr. Wilmer L. Allison of Fort Worth, which report will be found in its proper place in the transactions. The enormous amount of work done by the Council on Legislation and Public Instruction and the good work of the special committee on the care and treatment of the insane, should be understood and appreciated by our members.

Resolutions Criticizing Medical Record and Annals, the official organ of the South Texas District Societies were introduced at Austin, by the Board of Councilors, and warmly debated *pro* and *con.* The charge was made by the Board of Councilors that this publication had unfairly criticized the officers of the Association, and had been, in effect, in rebellion against the State Association. We do not care to comment on the developments here, but suggest a careful reading of the resolutions and the debate which followed. What might have proven an embarrassing situation was avoided by re-referring the whole problem to the Board of Councilors, the idea being, we presume, that during the forthcoming year the situation will be adjusted by mutual consent. Again we point to this instance as an evidence of solidarity in our organization.

The Report of the Council on Medical Defense should be read. The jeopardy of malpractice suits has steadily increased through the years that we have been extending this service to our members, although from time to time there has seemed to be a decrease in this particular effort to get easy money. There are now pending before the Council some thirty-five cases, most of which it is admitted are entirely inactive. The Council has chosen to remain in doubt rather than to take chances on arousing sleeping dogs. During the year, fifteen malpractice suits were disposed of, not counting a number of cases aborted. Of the cases disposed of, five were compromised, four dismissed and six won by the defendant physician. The Council has never consented to but one compromise, and it was forced into that in the interest of the defendant and not so much because of danger of losing the suit. The cases compromised were handled by indemnity companies. The Council has repeatedly pointed out that many of the indemnity companies would rather compromise than to fight these cases, because of the excessive cost incurred in using their expensive machinery. It is better for the physician to secure insurance from an organization which specializes in medical malpractice, for the reason that it is as much to the interest of the company as it is of the medical profession to discourage suit, as the overhead necessary to conduct malpractice defense is not so great as that necessary to carry on more complicated and more extensive indemnity service. The Council has a coöperative agreement with only one indemnity company, and has repeatedly announced that fact. While the Council on Medical Defense has contributed notably to our legislative endeavors, it was thought best not to burden this body further with expense of this sort. The test of the injunction feature of the Medical Practice Act was conducted by this Council, and the injunction feature upheld by the Supreme Court of the State.

Official Route to the A. M. A.—The Committee on Transportation, after much investigation and deliberation, settled upon an official route to the Atlantic City meeting of the American Medical Association, and the recommendations of the committee were

unanimously adopted by the House of Delegates. In selecting the route the committee had considered several important factors, and had endeavored to meet the average requirements. For instance, no train service was included that charged an extra fee because of the saving of a few hours time; the routes selected and the trains used would permit of the use of passes, upon special request; the most pleasing scenery possible was chosen, and the route so laid that it would pass through points of importance to the medical profession. In spite of this fact, the great majority of our members making the trip to Atlantic City permitted themselves to be routed by the agent from whom they purchased tickets, regardless, and the effort to secure a party for the long trip involved all but went for naught. It is strange but true, that doctors will permit themselves to be swayed by so many extraneous considerations under circumstances such as these. The Rotarians, Elks, American Legion, Shriners, etc., etc., experience no difficulty in providing special cars and even special trains, for trips of the same sort. Are doctors any less agreeable to each other? They certainly are not.

Practicing medicine under a trade name was decided to be an entirely proper procedure so long as the practice was carried on in accordance with the provisions of the Principles of Medical Ethics of the American Medical Association. Request for a decision along this line was made by the Harris County Medical Society.

The American Medical Association was invited to hold its 1926 meeting in Dallas, upon request of the Dallas County Medical Society.

It was decided that it is preferable to use the suffix "M. D." rather than the prefix "Dr." in all cases requiring that the title of a physician be given. Petition to this end was presented by the Harris County Medical Society.

Advertising clubs were called upon to use their utmost endeavors in curtailing false ads in the lay press, and church papers were requested to discontinue "flagrantly false" advertising of a medical nature.

Resolutions were adopted warmly endorsing the American Association of Medical Progress, formerly Friends of Medical Progress, which is doing such splendid work in support of scientific medicine.

A resolution was adopted reiterating the demand of the Association that the war tax assessed against the profession under the Harrison Antinarcotic Law, be abolished.

A resolution was adopted renewing the demand of the Association that the expenses of physicians in attending clinics and medical meetings be allowed in computing income tax.

The following officers were elected: President-Elect, Dr. Wm. Keiller, Galveston; Vice-Presidents, Drs. G. B. Taylor, Cameron, C. A. Gray, Bonham, and Minnie C. O'Brien, San Antonio; Secretary, Dr. Holman Taylor, Fort Worth (reëlected); Treasurer, Dr. K. H. Beall, Fort Worth (reëlected); Trustee, Dr. W. R. Thompson, Fort Worth (reëlected); Councilors, Dr. A. F. Lumpkin, Amarillo, Third District; S. P. Cunningham, San Antonio, Fifth District; C. P. Yeager, Kingsville, Sixth District; N. D. Buie, Marlin (reëlected), Twelfth District; J. K. Smith, Texarkana (reëlected), Fifteenth District; Delegates A. M. A., Dr. Holman Taylor, Fort Worth (reëlected); Dr. E. H. Cary, Dallas; Alternate Delegates A. M. A., Drs. G. B. Foscue, Waco (reëlected); S. P. Rice, Marlin; Member Council on Medical Defense, Dr. F. P. Miller, El Paso (reëlected). The next meeting will be held in Houston.

The Secretary earnestly requests that any mistakes or discrepancies in the Transactions as here published, be called to his attention.

The Commercial Exhibits at Austin were displayed in the lobby and on the mezzanine floor of the historic Driskill Hotel. The great majority of the exhibits were housed on the mezzanine floor, where the registration booth was also located. It seems to us that the character as well as the number of commercial exhibits improves with each passing year; they have indeed become an integral part of our Annual Sessions. The doctors of the State enjoy seeing the familiar faces of many of our exhibitors who attend our sessions quite as regularly as the members themselves. The small financial returns from these exhibits are of minor importance compared to the good accomplished in acquainting the profession with the reliable products offered by houses that are jealous of their reputations and that stand squarely behind the products they offer, whether they be drugs or serums, or the latest model in *x*-ray equipment.

At the Austin Session there were two exhibits which should not have been displayed, because they had not been approved by the Council on Pharmacy and Chemistry of the American Medical Association. The two exhibits alluded to were those of the Standard Oil Company, and the Denver Chemical Company. Such mistakes will creep in from time to time in spite of all care, and our main purpose in mentioning the matter at all, is in order that the next Committee on Commercial Exhibits may be more careful, and that it will not be considered that we have reversed our policy in this important matter. It often happens that a perfectly reliable house puts

out products which have been accepted by the Council above referred to, and also exploits other products which have not been accepted, and in some cases have even been condemned by the Council.

The following firms were represented:

Mead Johnson and Company, infant foods, Evansville, Indiana; represented by Messrs. E. M. Fowlkes and L. F. Lytle.

Horlick Malted Milk Company, Racine, Wisconsin; represented by Mr. A. Hunter.

The Standard Oil Company, manufacturing chemists, Bayonne, New Jersey; represented by Mr. D. A. O'Gorman.

The C. V. Mosby Company, St. Louis, Mo.; represented by Mrs. S. G. Cook.

The George W. Brady Company, *x*-ray equipment, Chicago, Ill.; represented by Mr. George W. Brady.

The Johnson North X-Ray Company, electrical apparatus and supplies, Dallas; represented by Dr. Frederick Johnson and Messrs. H. A. Glover, Carl Riggs and S. P. Radhy.

Kelly-Koett Manufacturing Company, *x*-ray equipment, Covington, Ky.; represented by Messrs. R. P. Kincheloe, R. E. King and Q. B. Shafer.

Cameron Surgical Specialty Company, Chicago, Ill.; represented by Mr. R. R. McEwen.

Gilliland Laboratories, manufacturing chemists, Marietta, Pa.; represented by Mr. G. L. Ramsey.

W. B. Saunders Company, Philadelphia, Pa., and *J. A. Majors Company*, New Orleans and Dallas, medical and surgical books; represented by Dr. J. A. Majors and Messrs. Geo. Henser and M. R. Shubert.

Terrell's Laboratories, North Texas Pasteur Institute and *The Terrell Supply Company*, chemical and biological laboratories and physicians' and surgeons' supplies, Fort Worth; represented by Messrs. S. M. Bulbrook, O. Coffman and J. E. Milford.

The American Optical Company, optical equipment, Southbridge, Mass.; represented by Messrs. J. T. Moore, John Wyche, E. B. Smith, J. H. Campbell and A. M. Rhodes.

Frank S. Betz and Company, medical and surgical supplies, Hammond, Ind.; represented by Messrs. C. J. Sanders and H. R. Boyd.

The Dry Milk Company, New York; represented by Mr. H. W. Bower.

Pendleton and Arto Company, physicians' and surgeons supplies; Houston; represented by Messrs. S. C. Arto and J. L. Keller.

Victor X-Ray Corporation, *x*-ray equipment, Dallas; represented by Messrs. B. H. Doble, F. A. Bolsten, A. D. Alley and Fred Hofert.

Deshell Laboratories, Inc., pharmaceutical laboratories, Los Angeles, Cal.; represented by Messrs. J. E. Huested, H. S. Howard and D. G. Mattison.

DeVilbiss Manufacturing Company, surgical and dental supplies, Windsor, Ont., Canada, and Toledo, Ohio; represented by Messrs. E. H. McClure, W. M. Steele, P. V. Grubbs and C. A. Maxwell.

Sharp & Smith, surgical instruments and supplies, Chicago, Ill.; represented by Messrs. H. E. Brown and M. P. Whitten.

E. R. Squibb & Sons, manufacturing chemists, New York; represented by Messrs. R. E. Hays, W. W. Kelton, D. D. Giles and L. E. Coolbaugh.

McDermott Surgical Instrument Company, New Orleans, La.; represented by Mr. A. J. Schneider.

The Denver Chemical Company, manufacturing chemists, New York City; represented by Mr. Thos. R. Newman.

The Sanborn Company, scientific instruments, Boston, Massachusetts; represented by Mr. C. W. Nickerson.

Burroughs Wellcome and Company, manufacturing chemists, New York; represented by Mr. A. B. Hosey.

Sommers Drug Company, San Antonio; represented by Mr. W. M. King and Mrs. Anna Smith.

A. S. Aloe Company, medical and surgical supplies, St. Louis, Mo.; represented by Mr. T. E. Lawlor.

J. R. Siebrandt Manufacturing Company, surgical supplies, Kansas City, Mo.; represented by Mr. L. G. Schultz.

Physicians' and Surgeons' Supply Company, San Antonio; represented by Mr. and Mrs. E. W. Bickett.

Preserve Your June Journal; it will be found a valuable source of information relating to the business of the Association. Prior to 1905, the Transactions were published as a separate volume, but beginning with that year they have been published annually in the June JOURNAL.

For those who attended the Annual Session at Austin, the transactions should be of interest as an authoritative account of the important business transacted. The minutes of the House of Delegates were recorded by an expert court stenographer, and the transactions as published in this number of the JOURNAL are these minutes, carefully edited, and with redundant matter eliminated. To those who did not attend the Austin Session, the transactions should be of especial interest, as they tell exactly what took place in the House of Delegates.

There has never been a number of the JOURNAL which contained more information of vital importance to every member of our profession than will be found in the Transactions this year, and we urge all of our members to carefully read at least that section. They will in this way get a clearer understanding of what the Association is trying to do not only for the profession, but for the public, who rightfully look to the regular medical profession for guidance in matters pertaining to public health.

The June JOURNAL also contains the list, by districts and counties, of the members who were in good standing at the time the number went to press. Great care has been exercised that no errors or omissions should be made in this list, but human fallibility is proverbial. The principal addresses delivered at the General Sessions will also be found in this number of the JOURNAL.

We therefore repeat, that the June number of the JOURNAL should be preserved, and not only preserved, but read and digested. If any indigestible matter is found, the proper remedial measures may then be more intelligently applied. *Vos plaudite!*

ORIGINAL ARTICLES

MEMORIAL ADDRESS.*

BY

D. M. HIGGINS, M. D.,
GAINESVILLE, TEXAS.

I could not make a memorial address if I wanted to, and so I come before you simply as a fellow doctor, that we may talk about doctors and think about those doctors who have gone before. I do not choose to grieve or mourn over the departed, although we miss them in many ways. We miss their counsel, their cheery smiles, their hearty handshakes, and their kindly presence. Many of those whose names have been called tonight it was my pleasure to know personally—some of them quite well. There has not been a doctor whose name has been called tonight but was known intimately by some of you. His life did not differ greatly from the lives of those of us who have been left behind, and there is nothing that I could do or say that would add luster to his memory. Neither would I open the wound for his loved ones again, but rather let us talk about the doctor's life's work; what it is and what it means. Let us take an inventory of ourselves tonight—I believe it might be worth while.

In Holy Writ we are told to present our bodies a living sacrifice, which is our reasonable service, and who more than the doctor literally gives his life a sacrifice from the beginning to the end, and probably no one knows that as well as his brother doctor or his family. The doctor goes on his mission of mercy at all hours of the day and night, in the heat or in the cold, in the rain and in the sunshine. His body, at times, is so weary from the day's work that he would much rather pay for a call than make it himself, but when duty calls, he feels that he must go. The doctor's life is a strenuous one. The records will bear me out that a large number of the physicians that have passed away during the past year died from the strain of their work, and that each year a large per cent of the doctors die from heart trouble. And so the doctor literally gives his life for his people.

Again, I would like to think of the doctor as a soldier. Until the last war we possibly did not think so much about soldiering and about what soldiers have to do. We heard so much then about "No Man's Land," where the soldiers had to go. Many of the doctors in this audience tonight have fought time and again, out in No Man's Land, where they hadn't a general, where they hadn't a colonel, where they hadn't even a corporal or a pal to tell them what to do. The doctor has to fight death alone. He is fighting a foe that he knows he will have to lose to in the end, and yet the doctor fights on, and on, and on, and does the best he can. And so I like to think of him as a soldier, for truly he is the most worthy of crusaders.

Many of the names of our prominent lawyers and statesmen are heralded in the newspapers, and at their death great monuments are raised by public subscription or out of public funds. But not so with the doctor. He works alone, is usually rather timid, dislikes notoriety, and goes about his work quietly, but I want to say to you, friends, that every doctor, when he passes to his great reward, has left a greater monument to his memory than could be raised in marble or bronze, in the love and sympathy and confidence in the hearts of the people whom he has served, and a testimonial that will last throughout all eternity.

A great many do not stop to think that the ravages of disease have been greater than those of war, and that these pestilences and diseases have been conquered by the physicians of this and other countries. I can remember as a boy—not long ago—when yellow fever almost devastated our Southland, when the victims of this scourge were buried in trenches like the dead on the battlefield, and yet, today, yellow fever is a disease almost unknown. The doctors and other devoted men that went in to fight that dread disease, not with the beat of drums or the flying of colors, often felt in their hearts that their work would only be for a few days, but as long as they could live, as long as they could stand, they went where duty called, and were true soldiers to the end. Not long ago malaria rendered great areas of fruitful land uninhabitable. Who conquered the mosquito? Who conquered malaria? It was the doctor, going forth alone against these foes of mankind, taking his life in his own hands out in "No Man's Land," and finally conquering and freely giving to this country and to the whole world all the benefits of his work.

I would like to invite your attention to another class of doctors, possibly the least appreciated by the public of any class that we have, the research worker. He toils patiently day and night in his laboratory in order that he may devise means by which to prolong our lives, to prevent disease and check it when it has a hold on us. Diphtheria, scarlet fever, small pox and a great many of the terrible epidemic diseases are today virtually under control. It is the doctor, therefore, who has made this country habitable; it is the doctor who has made this country pleasant to live in. The doctors of this and other countries have

*Read at the Memorial Exercises of the State Medical Association of Texas, Austin, May 5, 1925.

made is possible for our missionaries to go into foreign fields by teaching them how to care for themselves and how to prevent many of the dread diseases and the fevers that formerly made living in those countries so hazardous. It has been the physician and the laboratory worker and the sanitary engineer who have made it possible for our armies to go where they will when duty has called. Because of the discovery of antityphoid serum, typhoid fever is virtually unknown in our Army and to a large extent in our country and in our homes. And so, to my mind, the doctor is a soldier par excellence. He is and should be recognized as the greatest hero of all, because without him and his work much that has been done in the past few years would have been impossible. Even in the last war, had it not been for the medical profession rallying to the support of our armies as they did, the war could not have been won so quickly. And I am glad to say that our Government recognized the value of our profession as never before, began to equip and form medical schools and instituted an educational program for the doctors. Never before in the history of our country have our doctors received the recognition that they did in the World War.

It has been said that "young men dream dreams and old men see visions." As young men we had our dreams of what we would do in medicine and what we hoped to accomplish, but as we grow older we like to visualize what we hope will come to pass in the near future. After we have done all these things and after we have conquered disease, we still have to face that last foe, death. If we are not prepared to meet death; if we have not followed the Divine prescriptions of that Great Physician, whom we should all take as our great preceptor, our lives have been in vain. The Scripture says, "What profiteth it a man if he gain the whole world and lose his own soul?" It says, "Son, give me thy heart in the days of thy youth," and it also says, "The fear of God is the beginning of wisdom."

There is nothing that will so sustain a doctor, there is nothing that will so help him, there is nothing that will give him as much wisdom, as much confidence, and as much courage to go forward as the sustaining spirit of our Master. We do not know how many of us may be having memorial exercises held for us a year from tonight. And so, while we are here, and as we go back to our work, it might be well for each of us to take an inventory of our own lives. Many times we forget the greater things of life in the pursuit of our calling and in the hurry of life, and have left undone the things that should have been done. And so I repeat, fellow doctors, let us take an inventory of our lives and let us consider if the great summons should come to us tonight, tomorrow, or next year, if we are ready to meet that great Physician.

I would like to visualize for you a great medical meeting in the future, over which the great Physician will be President and will preside. There the doctors from centuries back, aye, from all time, will meet for years and years and never grow tired. We can then tell each other of our past troubles and mistakes, and of how we found out a great deal of our work by accident. The mysteries of disease that we are trying to solve today (and many of which may be known in the near future), will then be known by all. What a wonderful time we will have then and what a glorious thought it will be in that great meeting over yonder, that we can have a great medical meeting without the loss of a single brother physician! And so this is my closing word to you: "Take an inventory of yourselves! Give your heart to the Master and serve Him, for by serving Him you can better serve humanity."

AN EPITOME OF ORGANIZED MEDICINE; ITS PURPOSE AND DUTY.*

BY

MURFF F. BLEDSOE, M. D., F. A. C. S.,
PORT ARTHUR, TEXAS.

There is no record of how long man had been created before he began to organize himself with his fellows in an effort at mutual benefit and protection. If we give credit to students of geology and anthropology, we are to believe that man existed on earth in the so-called early Stone Age, reckoned to have been about one hundred and twenty-five thousand years ago. We can actually depend, however, for our information as to the development of the human family, only on recorded events.

History gives credit to the Egyptian Empire, which existed along the Nile, for our calendar, which was put into use in 4241 B. C. It is easy to conceive that an early handful of people had leaders, either self appointed or selected by mutual agreement, who promulgated rules and orders governing their material welfare. It was early evident, according to historians, and readily concurred in by us today, that some practical form of organization was necessary for a people's safety.

Our latter day dictionaries give as the definition of the word "organize," about the following: "To organize or constitute into

*President's Annual Address, State Medical Association of Texas, Austin, May 5, 1925.

interdependent part; to systematize for protection; to get into working order, as to organize an army, etc." Organization, then, has always meant, according to the ancient and mediaeval historian, as it means to us today, the correlation of a people's interest in self-protection, be it political, religious, economic, scientific or whatnot.

Organization, however, while necessary for the perpetuity of a nation or race, or political unit of government, was not, in the earlier period of man's existence on earth, nor has it at any time in the history of man, been sufficient for the proper development of a people. While serving its purpose of perpetuating a given political unit of government, in whatever land or country, there did not develop by reason of such organization, the finer and higher achievements of society until small subdivisions of the people began to form themselves into "societies." Societies found that to properly give expression to their efforts at progress, their amalgamation with other societies with like purposes, into larger bodies or associations, was necessary. It was only human and it seems to us reasonable that such a course would follow.

Necessity on the one hand, with the normal ambition of man to give outlet to his mental expression and development on the other, created the impetus for the formation of societies.

We are more than pleased to refer at this day and time to the scientific achievement of the last five decades. We are proud of the accomplishments of man, even further back than that, but the orators and historians of today, our people if you will, are extremely proud, and they should be, to recount and extol the accomplishments of the present generation.

For nearly six thousand years, according to actual record, people have been organized; but no great progress was made in science, or industry, until groups of organized people, those with the same ideals, vocations and ambitions, began to form themselves into societies for the purpose of correlated study and the prosecution of their ambitions and dreams in search of scientific truths.

It occurs to me that had the medical men of old had the necessary foresight and vision early enough, and formed societies and associations sooner, scientific medicine would have come into being ages before it did. It is certain that since time began, man has aspired to relieve suffering humanity. In order not to appear as critical of our predecessors, and to prevent a misconception, I must direct attention to the fact that all progress in human endeavor necessarily is, and has always been to a great extent, dependent upon other and similar efforts.

If I have made myself clear, and if after deliberation you can agree with me that the association of societies has been and is of great benefit to the human race, I would direct attention specifically to the profession of medicine. I feel that you will agree with me that while organized medicine, like organized government, is necessary and can be useful, medical associations are, after all, the avenues through which scientific progress is made.

Time will not permit me to review the entire history of the progress of medicine. It is granted that the earlier patriots in this noble profession of ours, such as Hippocrates, Galen, Harvey, Lister, Pasteur and others, aspired as much as we do today to give something to, and do something for suffering humanity. Try as they did, search as they could and strive as they would, they had no avenue through which they could develop their conclusions. No scientific discovery has ever been given the world by any man wholly and completely alone, and divorced from some efforts on the part of others. We recognize clearly and confess frankly, that real scientific medicine did not begin in its true sense until along in the seventies.

Pasteur gave to us the theory and practical information regarding bacteria as an element in disease. When we consider the length of time it took this real discovery to become common knowledge among physicians, we are amazed; but if we will consider the lack of association, the few avenues of publicity, the lack of ways and means of spreading knowledge, we should not be surprised at the apparently slow acceptance and practical use of scientific discoveries even of fifty years ago.

If time would permit, I would be more than pleased to go with you into the difficulties with which the medical profession has contended in its accomplishments. In order to make it clear why we should be so proud of our medical associations, and to show why organized medicine does and should exist, I will ask you to bear with me through a little history that may to some be dry, and doubtless to the doctors in the audience a repetition. I would submit a little data on the formation of medical societies.

The first scientific society was organized in Italy, in 1560, A. D. So uncertain were those interested in scientific development that the society was secretly organized, and there were only four members. The organization of this society for the purpose of scientific development, was predicated on the fact that even the faculties of the universities

were content with the old order of things, and were doing nothing toward research, or in the way of developing science.

More than one hundred years subsequent to the organization in Rome of the first society for the advancement of science, the Royal Academy of Medicine at Berlin, composed of the leading physicians of that city, was formed for the purpose of studying medicine. This was in 1700. There followed in 1731, the Paris Academie de Chirurgie, and from thence on, medical societies continued to be organized in Europe. The Royal College of Surgeons in London was organized in 1800.

In 1735, the Boston Medical Society was organized, which went out of existence in 1741, to be reorganized later. In 1783 the Medical Society of New Haven County, Connecticut, was organized, and it is *still active;* and so on down to Texas, which was first organized in 1853, or less than twenty years after she gained her independence from Mexico. It would seem that, after all, the formation of medical societies developed slowly, and progressed only slightly less slowly, but we must remember that no one science has developed independently of the others. For years after medical societies were formed, and papers were presented to the associations, there was no means of publishing the valuable material presented by essayists. One gets inspiration from the old New Haven County Medical Society which, in 1787, for the first time in the United States, published such papers, twenty-seven in number.

It is interesting to observe the action of the society when it decided to publish its proceedings. The following is an extract of the minutes:

"Voted, that a subscription be opened by the members of this society for the purpose of carrying into effect a vote of this society at their last annual meeting on the first Wednesday of January last, to publish in a pamphlet at the expense of this society a collection of the most interesting cases, and that the money arising from this subscription be lodged with the treasurer to the order of the Committee of Revision and Publication so far as the expense of paper and printing authorize, the remainder, if any, to remain with the Treasurer as a fund for the use and benefit of said society—and that the amount of the sale of the pamphlets be applied by the Treasurer to the credit of said society's fund.

"Voted, that the aforesaid committee be authorized to annex a suitable divise to the Pamphlet proposed to be published."

It is more interesting and inspiring to note the "divise" decided upon by the committee:

"All attempts to improve a science which is subservient to the dearest interests of humanity, must meet the approbation of every benevolent mind. Attempts of this nature are particularly necessary, and must be peculiarly useful, in an infant empire, where the seeds of science though widely disseminated, are but just beginning to germinate. Their future growth and increase depend on the care and attention with which they are nurtured. To excite others to this laudable and salutary work, is one principal object of this publication. It has not, we presume, proceeded from incapacity, or a criminal inattention, to the interests of humanity that the faculty in this country contributed so little to the general stock of medical knowledge. In a widely extended country, at a distance from each other, it has not been in their power to unite their efforts in this noble pursuit. The late war brought many ingenious and learned physicians together from all parts of the continent, and the army formed them into a temporary society, whose unreserved communications have contributed to the improvement of medical knowledge, and the establishment of a new and important era in the healing art. By this means the faculty have become more sensible of the importance of uniting their endeavors, and several medical societies have been formed in different parts of the United States. Should similar institutions become general, and permanent, there is reason to hope that medical literature will soon be in as flourishing a state in this country as in any part of Europe. A spirit of emulation will take place, sloth and ignorance decline, and the art appear with dignity and lustre. Should this effort of the society contribute in the smallest degree to effect those desirable ends, it will afford them ample satsisfaction for their labour."

The members of this society must have been stimulated at least by visits of members to Europe, and particularly to Berlin, where medical societies had been organized seventy years previously. I have not studied the history of European publications of the sort, the proceedings of European societies had been published and read, and brought back to this country, by those who had gone over there for study.

The American Medical Association was not organized until 1848, and did not publish a journal until 1882. It is no wonder, then, that there is conflict in the claims for priority of discovery among physicians. It is well known that in 1842, Long of Georgia, laid claim to it, and is entitled to credit for discovering and first using ether as an anesthetic; and yet, because of prior publication, Morton of Boston, where there was a better organized medical society which published its proceedings, did his work more than four years later, but gets actual credit in history for this discovery. When one considers the development of the science of medicine and recognizes that it has come through organized medical societies and associations; when one compares the length of time it took for the medical profession to recognize the value of the discovery of ether as an anesthetic, the value of antiseptics, the action of bacteria, etc., by Long, Lister, and Pasteur on the one hand, and 606, emetine and insulin by Ehrlich, Rodgers and Banting

on the other, one cannot but be proud to be a member of a reputable medical association.

Since the organization of the Boston Medical Society, in 1735, American physicians have, as time and opportunity permitted, continued to associate into well organized groups for the sole purpose of advancing the science of medicine. It soon became apparent that in order to really accomplish the purpose for which medical societies were formed, their scope had to be enlarged, as another factor had entered, absolutely necessary for any lasting accomplishment, that of raising the standards of medical education; in other words, for the public as a whole to get the benefit of scientific discoveries in medicine, all those who would practice the healing art should be possessed of a knowledge of all recorded scientific discoveries. It became early apparent, as we of today would recognize as quite obvious, that no one state could accomplish anything alone. Therefore, the organization of a still larger and more potent body, the American Medical Association in 1848, which set up for its main purpose, "the advancement of the science of medicine and raising the standard of medical education." At this time there was not a single licensing or examining board in existence in any State in the Union. A diploma from any so-called medical college carried with it the right to practice medicine.

The Texas State Medical Association was organized, as already stated, in 1853, that the medical profession of Texas might lend her co-operation and influence to the noble and glorious purpose of better equipping the physicians who would care for the health of her people. With the increase of other sciences, and the development of commerce in the United States and over the world; as steam railroads became extensive and transportation of mail became practical and expeditious, and printing presses became a thing of real practicability, the science of medicine developed, and the number of physicians began to increase. As might have been expected, in keeping with other business and professions, commercial medical schools began to come into being, a great many of them but poorly equipped for teaching purposes, both in personnel and laboratory facilities. Organized medicine then had its major purpose and duty before it.

As already stated, there were no licensing boards and a diploma enabled its possessor to impose upon the unsuspecting public as a real physician. Real students of scientific medicine were impressed with the feeling that something should be done, and organized medicine undertook to do it. The effort was recognized as truly justifiable, and it has been of more benefit to mankind than probably had ever been anticipated. So successful has been the monument that today our standards are about as high as economic conditions will permit. Commercial and poorly equipped medical schools have vanished, and we have in their place high standard universities, not for profit, supported by States or heavy endowments by people of wealth, who recognize the value to humanity of well trained physicians. Struggling along and taking its part in this noble reconstruction, the State Medical Association of Texas has done its duty.

When the American Medical Association, in 1901, reorganized on such a completely Democratic basis, Texas followed in 1903, joining with other States, that she might become a part of the great machinery operating for the uplift of physicians to the benefit of the people. So sound were the thinkers and so good their judgment that, though the Constitution and By-Laws of the State Medical Association of Texas were written in 1903, there have been practically no changes since that time. To be perfectly frank, it has always been the purpose of the State Medical Association of Texas to be truly democratic, both in purpose and operation. Our Constitution sets out as our general purpose, the following:

"The purposes of this association shall be to federate and bring into one compact organization the entire medical profession of the State of Texas, and to unite with similar associations of other States to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members; and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of State medicine."

It is to be noted, that there are seven major points. It is not necessary to dwell on the scientific aspects of the organization, other than to remind ourselves that the advancement of medical science is the first reason for the existence of our association. The local county societies are, after all, the dominating factor in our organization, both from a scientific and organization standpoint. In our county societies, be they large or small, every member has the privilege, and it is his duty and pleasure, to contribute scientific papers and discuss cases that have occurred in his practice. His accomplishments, when presented to his county society, are discussed by his fellow members, and may later be presented to his district and state association, and published, thus giving to physicians all over the civilized world the benefits of his knowledge.

From an organization standpoint, the State Medical Association attends to its business through its House of Delegates, composed of duly elected representatives, from every organized county society, who in turn elect the state officers, twenty-six in number, who also have a voice in the deliberations of the House of Delegates. Every question of public policy or of benefit to humanity, endorsed by the State Medical Association is so endorsed, by reason of the action of a majority of the legally elected delegates from the component county societies. Is there another organization in existence any fairer? It is the duty of the House of Delegates to recommend, as above inferred, policies and activities to be carried out through chosen officers, with their co-operation and support. The public has placed the responsibility of its care in matters pertaining to health, and correctly so, upon the medical profession. The medical profession has always aspired to, and fairly well arisen to the responsibility. It has never been satisfied with its labors in assisting nature in relieving the suffering, or restoring the individual to health. While we are proud of our accomplishments in this respect, while we are proud that we live in the era of scientific discoveries for the relief of individual suffering, we are prouder still of the dawning of that day that brought to the world and its people, such men as Jenner, Lister, Pasteur, Koch, Laveran, Carroll, Lazear, and others, who gave to the world preventive medicine.

It would bore you too much to recount here the advances made in the control of epidemics and the prevention of disease. For the purpose of this discussion, you will consider this thought: What would it have profited the people, though medical science had developed all of the known agencies of today for the control of the spread of and for the cure of disease, did not the public also know and appreciate the value of the same?

Thus comes into practical value the two purposes of our constitution, recognized by our forefathers a century ago, and adopted by us in the beginning of our existence "to secure the enactment and enforcement of just medical laws, to enlighten and direct public opinion in regard to the great problems of public health."

What would it profit the medical profession to have this vast store of knowledge, were the people not the beneficiaries? Why know that children exposed to scarlet fever will be liable to the disease, and that a certain number of them will die, unless the public be aware of the danger, and quarantine laws enacted and enforced? Why know about contamination of milk with typhoid bacilli, unless sanitary laws for proper protection of the public's health be enacted? And so on.

If the public is to receive its just deserts, and the medical profession is to continue in the high esteem in which it is held, to our first purpose must be added another, the raising of the standard of the physician's knowledge. It will be readily recognized that scientific truths cannot possibly be a benefit to the public unless all physicians practicing medicine are in possession of them, at least to the extent that they may recognize and diagnose disease; therefore the high standard for graduation, and for license to practice medicine. These facts do not come to the minds of our lawmakers accidentally.

Thus, the medical profession has an organization through which its accomplishments become of real service to the people by reason of its scientific knowledge, and its advice in the effort to enact proper medical and sanitary laws.

Each year, at our Annual Session, consideration is given to questions of importance to the health of our people, and our House of Delegates instructs our officers on general policies. Last year our House of Delegates directed four principal activities, *viz.*, (1) To coöperate with and assist the Eleemosynary Commission in their work with particular reference to the more humane commitment and care and treatment of our mentally sick; (2) to assist the State Board of Health in every way possible; (3) to put on a definite campaign in an endeavor to enlighten the public, with reference to health and sanitation; (4) maintain high standards of medical education, that the laws governing the practice of medicine be not lowered.

In line with this purpose, it was my privilege to represent the medical profession of Texas during the last twelve months in the execution of this work, calling to my assistance such officers and members of the Association as was deemed necessary. Among the other activities was the appointment of a committee to coöperate with the Eleemosynary Commission, created by the Thirty-eighth Legislature, in their study of the Commitment and Care of the Insane of Texas.

The responsibility of furnishing scientific and practical information to the various state commissions and departments, as well as state officials concerned in legislation, was freely accepted. It was a privilege and a pleasure to lend advice and counsel to these bodies in all matters relating to health and sanitation. The general results of our efforts, in all of our endeavors, were more than gratifying.

It would not be appropriate to burden you with the details of these activities. With

your permission (and with apologies to the state officers and employees about the capitol who may be present) I want to digress long enough to say to you who have not been associated with me here at Austin this year, that no representative of any organization was ever treated with more courtesy and respect by all with whom he came in contact, from our chief executive, Her Excellency, Governor Ferguson, on down to the Pages in the House and Senate, than were the representatives of the State Medical Association. Our advice and counsel was not only appreciated, but really sought on all matters pertaining to the protection of the health of the people of Texas. I want to take this occasion to make acknowledgement of the splendid coöperation on the part of our officials. I want here to express my appreciation and that of our Association, of the wonderful courtesies received at the hands of our public officials in Austin.

The future holds as many problems for the medical profession as the past has held. Our labors must be continued. If you can be patient and bear with me a little longer, I would like to direct your attention to a condition in Texas that the medical profession, in coöperation with the State Board of Health, civic and women's clubs, churches, etc., must strive to remedy: the midwife situation.

There has been no machinery for extensive study of the problem of the midwife, but such investigation as has been made shows that with all the advanced scientific knowledge of our people and of our physicians, together with modern telephones, better roads, automobiles, etc., twenty-five per cent of the babies born into this world in Texas are accouchered by the widwife.

In a survey by the Child Hygiene Department of the State Board of Health, it was found that more than sixty per cent of the women practicing midwifery were entirely illiterate. The Wassermann reaction indicated that twenty-seven per cent of these ignorant women were syphilitics. Consider, if you will, the physiological process of birth, and imagine the chances of contracting this dreadful disease, by either mother or baby, if the attendant at birth is infected.

The babies born dead, or those who die within the first twelve hours, in the hands of the midwife, have been found to be about fifteen out of every one hundred. In the hands of physicians, the number is *nil*. Of six counties recently surveyed by the Child Hygiene Department of the State Board of Health, casual questioning of seventy-one families, including American, Mexican and negro people, as to why a midwife instead of a physician was employed, revealed the fact that it was because of ignorance of the necessity of proper care at this critical time, in better than eighty per cent of the cases. Economic conditions (which, after all, were influenced largely by lack of information) were responsible for the other twenty per cent.

Granting that there is a midwife problem, the question arises, what shall we do about it? There are three answers: First, ignore it; second, pass drastic laws and eliminate it, and, third, educate and raise standards.

(1.) It is to be admitted that we have heretofore ignored, to a very large extent, the midwife situation. It may be satisfying to say that these midwives are ignorant, superstitious, old grannies, and should not be allowed to practice. In the meantime she goes merrily on, having no aseptic conscience or education of any sort, and only the Lord is to blame if things go wrong. Surely we cannot consistently any longer ignore this situation.

(2.) To eliminate by drastic laws probably appeals to us on first thought, but there are many conditions which should be met before intelligent people can recommend the adoption of a program of elimination. First, the public will have to be educated to the need of proper obstetrics; second, the economic situation which sometimes tempts a family to take a chance on the cheapness of a midwife must be solved, and, third, there must be better roads and better modes of communication. It will take time to do these things.

(3.) Education is the method which is being tried in some of our larger cities. By educating the midwife and properly supervising her physical as well as mental equipment, for this important service, great and lasting good can be accomplished. It would not be proper at this time for me to go into the details of the process of education of the midwife. It is sufficient in this discussion to point out that with such an organization as the State Medical Association, coöperating with the State Board of Health, with the women's clubs, luncheon clubs, churches and civic bodies, and the unorganized public spirited citizenship of Texas, something can and should be done to remedy the situation.

There are many other activities which will, from time to time, and more or less constantly, engage the attention of the State Medical Association of Texas. From this week's deliberation will come policies, meritorious and scientific in their purpose, which will mean progress and protection to our people. I know not, at this time, what they will be, but of one thing I am quite certain, whatever action is taken, whatever policies adopted, will be forward in scope and purpose. We will never go backward.

May we ever measure up to our duty; may we continue, as heretofore, to practice and exemplify the true spirit of altruism. I feel encouraged and have every incentive to be confident that we will never falter or tire, since, after all, I agree, as all true physicians do, with Pasteur of old, who said that he held the unconquerable belief that the future belongs to those who serve humanity best.

THE MEDICAL PROFESSION NEEDS MORE PUBLICITY.*

BY

JOE E. DILDY, M. D.,
BROWNWOOD, TEXAS.

Every worthy man who has a laudable ambition likes to feel that his avocation in life is worth while, and that it meets with the approbation of his fellow man. Each doctor has his clientele, and is probably overestimated by the few who patronize him. We approve of each other whenever competition is on crutches, or when reciprocity has golden wings.

The medical profession, as a profession, taken as it is understood by the world today, is not appreciated as are the other learned professions. If one of you has the egotistical idea that the people are teaching their children to pray for you, and that they are painting imaginary halos above your heads, you had better get psycho-analyzed for paranoia.

Most people think a county medical society is a secret order. I do not see how they could think otherwise, for they get the idea from what they hear us say among ourselves, that the main object is to raise hell with each other, and prices on them.

Most everything that is printed about our business is uncomplimentary and misleading. We cannot blame the press. The only thing that most editors know about us is that we fuss about nearly everything medical they print. The editor cannot help but think that the doctor is against his avocation in life; then why should he bother himself to protect one who neither patronizes nor approves of him? In the past we have not favored any kind of publicity, personal or professional. Some county medical societies have even voted it unethical to carry cards in the local papers, thus depriving the newspaper of valuable patronage. One doctor was called before the censors of his county medical society because the local paper mentioned his name in connection with his mother-in-law, who was sick. This was nothing but bone-headed prejudice; it was not even envy, *because it was not a funeral notice.*

I hope no one will understand me as advocating any kind of personal advertisement of superiority. That would be quackery and distasteful; but I do plead for change in our attitude on professional publicity. I wish I had the ability to convey to you my estimation of the power and influence of the press.

Some ten or eleven years ago, when the war clouds gathered on the horizon of all civilization, forked-tongued flashes of hatred and the distant roar of cannon crossed the seas, and we awoke in America, in 1917, bewildered at an impending disaster. War was inevitable. The great American Press squeezed all the slacker blood out of wealth and industry; every enterprise and every human being was directly influenced into a fighting mood. In three weeks, we were changed from a peace-loving country into an angry mob, clamoring for battle and for blood. A grand and glorious manifestation of American patriotism! And it was the press that so suddenly marshaled the psychology of war. But when the monster was in chains and the war clouds had blown away and our loved ones that had survived came home, we thought the press was through. But the Unknown Dead Soldier was yet to come home. The newspapers told all about it, how he gave his all to save the world for democracy. Our war-like attitude changed overnight to pathos and hero worship. The Goddess of Liberty held even higher the beacon light of welcome. Orators and statesmen eulogized the hero private who died in Flanders Field. There were tons of flowers, and a million eyes wet with tears. Poets sang songs of praise, and artists painted beautiful pictures of angelic ascensions into Eternal Glory. It was a nation's heart throb of gratitude for an unselfish service rendered.

What great power was this which, like some god, influenced a strong nation like ours to beat its plowshares into swords, and turned its automobile factories over night into munition plants? What power was this which made us fight the biggest unchained devils alive? And when we had licked them and almost forgotten it, what same power led us back in a more humble mood to bow our proud and haughty heads and weep at the grave of an unknown private soldier, who probably died on purpose to avoid being eaten up any more by top-sergeants and "shave-tails?" The Great American press, the newspapers and periodicals, mould public opinion, swaying the multitudes as the zephyrs bend the ripening grain.

The medical profession lives on its merits. Only one-third of the people know even a part of its merits. Half of the people believe

*Address delivered before House of Delegates, State Medical Association of Texas, Austin, May 6, 1925.

that diphtheria antitoxin kills as many as it cures; another half believe that the Chiros are the sure-enough doctors, *because they read it in the papers.* The quacks pay for a page to explain that which is not so; they have charts and drawings to explain a scientific lie. We do nothing, and then wonder why the Chiro gets the patient, and we get the gaff. It would help some if it was printed in every paper in the United States that no Chiro, or any of the other 57 varieties of irregular doctors was ever commissioned as a medical officer in any army or navy in all the world.

Some years ago the president of one of the world's greatest railroads ordered a newspaper reporter out of his private car, with the remark, "Let the public be damned." It is interesting to note that, today, that same railroad maintains a most efficient publicity and advertising department, whose slogan is, "Let the public be informed." Thus the times have changed. There is nothing so big that it does not need favorable publicity. The Steel Trust, the White Star Lines, the Southern Pacific Railroad, or Henry Ford—these, with all their advantages, cannot afford to ignore publicity, for fear of retrograding.

Generations ago, England recognized three great powerful estates, the Lords Spiritual, the Lords Temporal and the Commons; but Edmund Burke brought into the limelight another power when he pointed to the Reporters' Gallery in the British Parliament, and said, "There sits a fourth estate far more important than them all." Today, who doubts Burke's estimate, for the awakened consciousness knows that the press is an ever-growing, powerful influence.

"Get Examined On Your Birthday." An ad like that in the local newspapers by a county medical society, lived up to in a scientific way, would pay our fifteen dollar dues many times over in money and public gratitude, for we would find many diseases in their incipiency. Some M. D.'s will say that is hunting for practice. I would rather hunt for something I could benefit or cure than to have all the distressed and neglected world running after me with bleeding cancers, popeyed goiters, tubercular hemorrhages, tottering tabes, uremic fits, tetanic convulsions, puerperal earthquakes, paretic insane wailings, deathbed groans and funeral dirges.

Take a lawyer who in answer to one of his calls to duty, frees some rich client, or turns some notorious criminal back to prey upon the world, and lo, he becomes a national hero over night, through the startling headlines of an associated press. A doctor mounts a rickety stairway into some humble home, and there fights death, not from some guilty soul, not one but two lives are the prize. A mother is saved from puerperal sepsis, or perhaps post partum seas of scarlet blood, and her new-born babe from permanent blindness. In the wee hours of the morning, he leaves them happy and doing well, but it is against medical ethics for the local paper even to mention the doctor's name in connection therewith.

I saw a squib the other day which read, "When a lawyer frees a rich criminal, somebody goes bankrupt." Now, if any of you doctors think you amount to much, rescue some prominent tight-wad from an untimely grave, restore to him his former health and give all his overanxious heirs the blues. Your bill for keeping him out of hell will not be enough to hold his respect. He will give you a meagre check, and hie himself away to Glenrose to convalesce.

The religous press, and the liberal space granted in the lay press to those inclined to use it for religous purposes, has made the church popular, an infidel a curiosity, the Christian home the rule—and the people in my town call my preacher "Doctor," and call me "Doc."

The doctors of this Association should counteract the persistent criticism of nostrum vendors, quacks, fakes and pseudo-medical cults, if we have to pay a dollar an inch for the space. Two inches of the truth each day for a week will move any quack; one inch of facts would increase the patronage of a worthy profession.

The cleansing of Cuba, the wonderful health crusade in the Panama Canal Zone, the success of typhoid vaccine and the startling benefits derived from health boards, have all been of great value to the regular profession, and without much aid from us.

Anti-vivisectionists, faith-healers, nostrum-disbursers, food faddists, and quacks generally, use the press every day in the year, not only to boost their worthless rot, but to criticise an unresenting medical profession. Their nauseating dope is thrown into the front yard, poked under the doors and into every mail box in the United States. Nine-tenths of the people read this stuff, and three-fourths of them believe it; for they have no chance under the present Rip Van Winkle methods of the regular profession of learning that these imposters' claims are false.

People are neither for, nor in harmony with the medical profession. We have our personal friends, and each of us has his clientele; but, collectively, we have as little to say on governmental affairs in Texas as

would a Jewish peddler at a Ku Klux prayer-meeting. We will never get a National Board of Health, headed by a cabinet officer, in this country, until we get into print and create a sane demand for it. It is of vital importance, and is more needed than tariff reform, more than a new income tax law; but when we will get it is as indefinite as when you and I will be glad to see our competitor's name in the paper.

Advertising creates demand for things not necessary. Did our grandfathers eat breakfast food? Judicious advertisement overcomes prejudice. It made the farmer friendly with the automobile and the movie; it made temperance cranks blind to Monticello's twenty per cent, and saintly matrons drink booze from the fountains of Wine of Cardui.

One time in my town, we had a public health meeting and our own Dr. Rosser was the speaker for the occasion. We had to hold up our preliminaries for the Radio program, which we advertised in connection with our public health meeting, and by so doing we secured the presence of the average medical audience of fifty people. We had to discontinue our preliminaries, for the Radio was coming in and very much to my chagrin, after the first musical number, the bombastic, egotistical Chiro of Davenport, Iowa, popped right out into that meeting, and the way he broadcasted his rotten stuff was painful to hear. Dr. Rosser all but lost his voice, and I felt like a Kentucky colonel at a prohibition picnic. How painful, that the notorious quack was using modern means of publicity, talking into a million homes, while there we were, in our puny efforts, using antiquated methods of publicity, the only means we had and we are oftentimes criticised for using that.

The wonderful effect of repetition on the public mind is marvelous. Let Truth hit these fakers with facts and keep it up. Two thousand medical men who are competent should write scientific articles, couched in plain lay vernacular, and have them published. A generous press would respond, if the profession asked it. This cannot be done for nothing to begin with, but it is of vital importance.

Printer's ink has placed the Commercial Lion on a social level with Prince and Potentate. The Chewing Gum King hobnobs with our political leaders. Edison and Westinghouse are known wherever lights burn and wheels turn. The memory of Jacob Strauss and Marshall Field is revered by Jew and Gentile alike. Even the names of Jack Dempsey and Babe Ruth are known the world round, but how many know about General Gorgas, Dr. Banting or Professor MacLeod? Our children are taught to worship our war heroes, and I would not subtract one ioto from the fame of the Nation's noble generals who carried our flag through seas of blood to victory, but I would like to see a little footnote somewhere at the bottom of the famelit pages, with a few complimentary remarks concerning our noted Jenner, Harvey, Lister and Pasteur.

How many physicians are in Congress? How many doctors' names are in the Hall of Fame? Read the history of civilization, and I believe you will agree with me when I say that the medical profession has been on the wrong track, going the wrong way, for a mighty long time. Honestly, will any of you please tell me of any good we have ever done, or anything worth while we are likely to accomplish, by this antiquated, egotistical, self-satisfied, mysterious, say-nothing professional policy of ours?

In my town, our County Medical Society patronized our home newspapers in an ethical campaign, successfully clearing the town of Chiros. The editor of one of our daily papers has been publicly complimented in more than one medical society, and in the pages of our Texas State Journal of Medicine. Our County Medical Society voted it ethical to carry a card; thus our newspapers are patronized and the editorials of which I was speaking are of untold value. *Reciprocity seems to work in our country.*

I wrote to the editor of a newspaper, and asked him to express his opinion of the attitude of the medical profession toward publicity. I will read you a few lines of what he said in reply:

"As we of the press view the situation, the physicians are deliberately refusing to avail themselves of one of the most powerful weapons of defense against quackery, as well as refusing one of the most powerful allies of legitimate medical practice. The newspapers do not complain merely because they are denied the revenue that would come to them from advertising by physicians, but for the more important reason that the medical profession is throwing upon the press the burden of leading in the education of the people for their own protection, whereas this is, and should be, the function of the medical men themselves."

I read an editorial in a daily paper on this same subject, where the editor has to say, "The medical profession needs to throw aside the shell that has been handicapping it for so many years, the shell of so-called ethics that keeps it from telling the people, through all the means of publicity at its command, just how to save their own lives by preventing disease, and by securing treatment for

disease before it reaches incurable stages. The great profession that is serving humanity so nobly must be utterly unselfish with its knowledge of disease. It must go into the newspapers and magazines, and every other place offering facilities for publicity, and tell the people about disease and disease prevention. Until it does this, it cannot escape a large share of the responsibility for the loss of thousands of lives by preventable diseases each year, for the medical profession is the only one that can stop such loss."

I checked up on my County Medical Society last year. Twenty-five of us gave to lodges, clubs, churches, higher education and home and foreign missions twelve thousand five hundred dollars, and for all dues and medical publicity not over four hundred dollars! I am not against foreign missions; I contribute to them regularly; neither am I against a home-grown, doctor-made, missionary newspaper campaign designed to abolish the quacks and nostrum-vendors preying upon the innocent and ignorant in the United States. I can not see how any good doctor who is not prejudiced against newspapers can sign on the dotted line for $50.00 to $100.00 to send a Medical Missionary to teach naked, monkey-faced, South African negroes the road to Glory and Wellville, and refuse to contribute fifteen dollars, called medical dues, to educate one hundred million American people in this country in the primary laws of sanitation.

I know this does not appeal to the doctor who has no vision beyond a big practice and his personal prestige. I am not talking to any bullet-eyed nonentity who loves not the world beyond his own township. I am appealing to the reason of the big men of a big profession, men who are big enough to say, "I see; our endeavor must be to aid humanity first, and in order to reach them, we who are the only source of reliable information, must use all modern methods of publicity to teach to humanity preventive medicine, and to lend encouragment in public health matters." If we were to do our duty even in part, no more quacks would bother, and nostrums would vanish, the death rate would be greatly lowered, and our profession would take the first place in the estimation of man. It is as simple as bathing in the Jordan. First teach the people the good we have already accomplished, for no one can properly teach them but us. Appeal to their reason; explain and make plain why they should forsake their fool's gold and false gods, and coöperate with us, for their sakes, not ours.

The spirit that we should and do emulate in our daily work was born in a star-lit chamber of Bethlehem nearly 2,000 years ago. It has come down through the centuries, and you and I see the flaming star as clearly today as did the Wise Men of the East on that memorable night. The crucifixion and the birth of our Christian religion have not traveled these two thousand years silently. Thousands of apostles have preached it from a thousand hills. A billion Bibles have been printed in every known tongue, and millions of tons of publicity have penetrated every land. Had the Christian religion not been championed by those who believe in its divinity, it would not have lasted more than two generations. Now, who are to champion our cause of life-saving sanitation and preventive medicine? Those of us who believe it is right. Those of us who are willing to make a sacrifice. Those of us who believe the people should be informed, and be taught that there are no mysteries in rational medicine. And should there be those who think more of money than they do of humanity, or those who are jealous and suspicious of volunteers who are willing to do their duty, they should not intimidate, decry or condemn our best apostle, whose surname is Publicity.

THE DOCTOR'S WIFE AS A CITIZEN.*

BY

MRS. JOHN O. McREYNOLDS,
DALLAS, TEXAS.

I must confess, in the beginning, that I have no special gifts that fit me for the forum, and that I have lived too long to even cherish now an ambition to develop or create a faculty that Nature has withheld from me.

I am very much interested, however, in the welfare of our people, and I feel a great pride in the part women are taking in the progress of civilization. This has grown out of the expansion of woman's influence in the affairs of the world, and the added responsibility imposed by the elective franchise. In the midst of these increasing, and sometimes perplexing problems, I would not favor the slightest relaxation of the historic vigilance and care concerning woman's essential and imperishable function in the home, and yet I am convinced that she now has some additional obligations as a citizen which she cannot afford to forget.

No combination of emergencies can ever, or should ever, take away from woman the power and the privilege inseparably connected with her natural and supreme obligation—the perpetuation of the human race and its elevation to the very highest point of physical, intellectual and moral development. If there

*Address delivered as retiring President of the Woman's Auxiliary of the State Medical Association of Texas, Austin, May 6, 1925.

is any purpose in the whole plan of creation on this planet, it centers around the mysterious domain of motherhood. When a woman goes down to the very portals of the grave to bring forth a new life with all its possibilities for good and evil, she has assumed a place in the world's work that calls for the best she can give. "As the twig is bent, so is the tree inclined," and it is the woman's hand whose tender touch never leaves the twig from its origin to its close. No other duty can transcend in dignity, in responsibility, or joy, this divine commission which she must carry out with all the wisdom and courage and love wrapped up in a woman's heart.

But we cannot continue to live in the isolation of the home as in former days. Through the marvelous advances in transportation, the automobile and aeroplane with wings swifter than an eagle's, and with the radio, transmitting thought and feeling almost instantaneously to the uttermost parts of the earth, we have become in this generation, not only members of a family, but citizens of the world. Our lives are more directly impressed by conditions all over the globe, and we, in our turn, cannot help exercising an influence upon the lives of people who live in distant lands. Since we cannot escape the responsibility of full citizenship, our clear and imperative duty is to give earnest thought to our extended field of labor that the "harvest" may be worthy of our best and most faithful service.

I am particularly impressed with the opportunities for service presented to the doctor's wives of our state and nation. The real comradeship existing between husband and wife can find no fuller expression than in our own lives as a part of the medical profession. The very essence of comradeship is in concerted effort in a just and holy cause. If the dominating ambition in a doctor's life were the mere accumulation of gold rather than relief to the stricken members of our race, there would be no lofty appeal to the best impulses of a woman's heart to join without reserve in this arduous struggle. His days of toil, and nights of solicitude, and faithful consecration to duty, suggest to her not simply an increase in available funds for support of her family, but the restoration of health and happiness around other hearthstones than her own. They bring to her the picture of other eyes that have shone brighter and others hearths that have grown gladder through efficient medical service, and thus she finds a new source of happiness in the sacrifices she is forced to make, in order that her husband may bring help and comfort to others. She thus becomes, in its broader sense, a partner in the art of healing, and her interest in the general welfare of mankind becomes deeper and more enduring because of her fellowship in the great cause. I do not mean that she must assume any active personal participation in her husband's practice, or that she must even be brought in contact with the patients themselves. She should never try to acquire patronage for her husband, but she should strive not to diminish the influence which he has. Her influence can be better expressed as a reserve force, an auxiliary, operating through her husband, keeping him efficient in body, in mind, and in spirit, through her ready sympathy and encouragement in the trying ordeals of his profession.

Then as auxiliary members of a great profession, as citizens of a great Republic, as component parts of the world's great work, let us put forward every effort within our power to safeguard the welfare of our people.

To this end let us keep our energies in harmony with the high purposes of scientific medicine and bring into action the influences of intelligent womanhood with its powerful appeal to reason, sentiment and sympathy—and I know you will pardon the feeling of pride which I cherish for the women of Texas when I say I have an abiding confidence in the spirit and effectiveness of their labor, and I shall expect the physicians' wives of this State to lead the Nation in the splendid work they have undertaken in magnifying the importance of the American Home.

And whatever growth may develop from the seed we have already sown, will be due mainly to the faithful cultivation you have given, and will continue to give in the future, under the able leadership of our new President, Mrs. Collom of Texarkana, who will guide us through our different paths of duty towards the goal of our success and lofty ambitions. It gives me great pleasure to present to her this gavel, which is a symbol of the confidence we have reposed in her and a pledge of our loyalty to the cause she represents.

CLEVELAND'S ANTI-DIPHTHERIA CAMPAIGN.

An anti-diphtheria campaign among kindergarten and first grade children in the Cleveland schools is described in the *Ohio State Medical Journal.* Only children who bring signed permits are given the treatment, which consists of the Schick test to discover whether susceptibility to diphtheria exists, and then, in cases showing positive reactions, injection of three doses of toxin-antitoxin. Two-thirds of the 12,000 children tested during the present year were found to give positive reactions. No untoward results and very few local reactions followed treatment.

ADDRESS OF THE PRESIDENT-ELECT OF THE WOMAN'S AUXILIARY.*

BY

MRS. S. A. COLLOM,
TEXARKANA, TEXAS.

It is with fear and trembling that I accept the head of this great organization. My predecessors have builded high and made the ascent steep for us who follow, but some wise man has said that the first requisite for the chairman of an organization is a knowledge of its goal.

The path has been so well defined that with your coöperation we shall find it a pleasure to carry out the plans of so worthy an organization, whose object is to extend the aim of the medical profession through the wives of the doctors, to the various woman's organizations which look to the advancement in health and education, and to promote acquaintanceship among doctors' families in order that local unity and harmony may be increased.

We have noticed in all worth while club work the wives of doctors are leaders. Why not use our auxiliaries as the means of promoting this work? Let the credit be placed where it belongs. "We came not to our place by accident; it is the very place God meant for us." We all want to grow, to aspire, to achieve, because as Phillips Brooks has said, "We feel forever the thing we ought to be, beating under the thing we are." Then, that divine study that shall ever unfold, in wondrous beauty the love and faithfulness of God, cannot be realized unless we join our free will and choice with God, for He has made us with a creative will of our own, without which we could not gain character and eternal life. It is by such a life that we follow the principles and teachings of the "Great Physician," ever looking to the advancement of health and education.

It has indeed been a pleasure to meet you wives, and I am sure that when one of us says lovely things about the other, our doctors will feel more brotherly toward each other. There is a common tie between all doctors' families that makes a kindred feeling, and through the local auxiliaries this feeling should be cultivated until the bond grows stronger and there is more unity in their work.

So let us strive together in unison that we may be

Wives who think far finer thoughts, than poet words give flower;
Whose high impulses flee the pen, but unfurl in deeds of power.
The wives whose hearts are throbbing walls behind which greatness thrives,
Whose tongues untuned to speech, but yet whose works enrich other lives.
There are wives who have no outward grace, no charm of voice or manner,
Who, silently, unsung, unknown, serve 'neath a husband's banner.

Should one wonder about a doctor's wife's sphere?

Do you think it has a limit?

"There's not a place in earth or heaven;
There's not a task to mankind given;
There's not a blessing or a woe;
There's not a whisper, yes or no;
There's not a life or death, or birth,
That has a feather's weight or worth,
That should not have a doctor's wife in it."

We all know the man who signed our birth certificate and the man who will sign our death certificate, who stands by us in the hours of greatest happiness and of greatest sorrow, who listens to our confessions not breathed to another soul and keeps them inviolate. His life's work is consecrated to serving and administering to our physical wants. Night or day, rain or shine, he is at our beck and call. He sacrifices his rest, his pleasure (yea, his wife's too), his strength, to comfort you.

As he wends his way past the year-stones of life toward the Eternal Sunset, he strives to be more charitable, more unselfish and more kindly towards his fellow man. He is not rich, because he serves suffering humanity, which embraces the poor whom we have with us always. He is the doctor; and, therefore, the doctor's wife pondering these things in her heart, thinking of the countless deeds of mercy he has been doing all these years in the name of charity, sweet charity, and that if in that other world better than this, there is a better crown than others have, surely it must be waiting for the doctor's brow.

We, their wives, cannot do the good in the world our husbands have in their power to do. Our sphere is so circumscribed that our real usefulness to those around us, compared with theirs, may be likened, perhaps, as the shadow unto the form, but it is good to know that shadows have had their missions in the world. The wounded and dying soldiers have turned upon their cots to kiss the shadow of the saintly followers of Florence Nightingale, as it fell upon them.

The doctor's wife works quietly, unostentatiously, carrying with her into the sick

*Delivered before the Woman's Auxiliary of the State Medical Association of Texas, Austin, May 6, 1925.

room, or over the telephone, the cheerful heart which doeth good like medicine. It is a tribute to the wives who so nobly have lived their lives on the altar of human service as a help-mate to the doctor of whom the poet sings, whom the nation honors and loves. And so to the wife, who, though living quietly, added with heart and mind and spirit to her husband's prestige and influence; to her, let us pause now and pay tribute.

"Life! We have been long together
Through pleasant and through stormy weather.
'Tis hard to part when friends are dear,
Perhaps 'twill cost a sigh, a tear;
Then steal away, give little warning.
Choose thine own time. Say not, 'Good-night;'
But in some brighter clime, bid her, 'Good morning.' "

TRANSACTIONS

FIFTY-NINTH ANNUAL SESSION OF THE STATE MEDICAL ASSOCIATION OF TEXAS,

AUSTIN, MAY 5, 6 AND 7, 1925.

First Day, Tuesday, May 5, 1925

MINUTES OF THE OPENING EXERCISES AND FIRST GENERAL MEETING.

The Fifty-ninth Annual Session of the State Medical Association of Texas was called to order at 10:30 a. m., in the Senate Chamber of the State Capitol at Austin, Texas, May 5, 1925, by Dr. Joe Gilbert, of Austin, Chairman of the Arrangement Committee.

Dr. Gilbert: This is the opening of the Fifty-ninth Session of the State Medical Association of Texas. Dr. Valentine Lee, Rector of St. James Episcopal Church, will render the invocation.

INVOCATION.

O God, our Heavenly Father, in the halls of wisdom do we gather here in Thy presence, knowing that our wisdom without Thy wisdom is not wisdom at all; knowing that our skill save Thy hand direct, is not skillful at all; knowing that our strength without Thy strength is but the weakness of mortal man, we come this day as Thy simple children asking simply that Thou wouldst make us strong in Thee, filling our lives full with the expression of opportunities well taken advantage of, giving us Thy strength, Thy skill, Thy wisdom, that in the simplicity and sweetness of living we may do good to our fellow men. And we ask these things because long, long ago, there went about the ways of Galilee a young man in whose hands was the healing touch of the Almighty God; in whose spirit there was the simplicity and sweetness of a child, and in whose strength and in whose spirit lies enwrapt this day the hopes and aspirations and desires of all mankind. And as we close this prayer we would all together say, in the words which He taught us to say, Thine own prayer: "Our Father Who art in Heaven, hallowed by Thy Name, Thy Kingdom come, Thy will be done on earth as it is in Heaven. Give us this day our daily bread and forgive us our trespasses as we forgive those who trespass against us, and lead us not into temptation, but deliver us from evil, for Thine is the Kingdom, the power and the glory forever and ever, Amen."

Dr. Gilbert: We will now have an address by W. D. Yett, Mayor of the City of Austin.

ADDRESS OF MAYOR W. D. YETT.

It is not a formality for me to stand here this morning and tell you that the entire citizenship of Austin is really glad to have you here. It really comes from the hearts of the people, when I extend to you this welcome and these hearty greetings. You are here from every part of the State, and, possibly, there are some from beyond its borders. You are here to represent the people from the districts that you came from, and you are engaged in a work that is absolutely necessary and indispensable. You work for the betterment of the human race as a whole. From time out of mind, when the memory of man runneth not to the contrary, the medicine man has been held in high esteem, even if ridiculed sometimes by some people. It does not matter whether you are intelligent or ignorant, whether you are Jew or Gentile, whether you are Greek or barbarian, from all the history of the past the medicine man has been considered as the necessary man, a necessary being in any and in every community and in all communities. Most of our civilization is in our homes, but underneath that lies an educational foundation which guarantees our liberties in different forms by the Constitution of our State and of the United States; but even in that home and around that home must be the intelligent physician, in order to develop the right kind of manhood and womanhood.

Man is recognized as a dual being, and it is not only necessary that his physical body should be developed, but his education must be right; and it is as necessary and as imperative, if he is to be made the individual he ought to be, that he receive the benefits of mental as well as bodily hygiene. We can guarantee our rights and our privileges, under our Constitutions, and the sacredness of our homes, by an Army, or a police force, but we cannot guarantee health by any such methods. We can drive back an invading foe and raise our flag of liberty over this land from sea to sea, but in the face of the armies of germ-laden diseases that come to strike down manhood and womanhood we are helpless, absolutely helpless, unless we have our educated physicians, our hygienic and sanitary engineers, who say to the epidemics that have destroyed thousands in the years gone by, "Hereto shalt thou come and no further;" who say to them, "You shall not pass." It is not so far back, probably not more than forty years, when we hadn't heard of the yellow fever mosquito; even more recently than that we recognized the malarial mosquito. Today it is almost a reflection on the intelligent physician when in his own district and in his own practice, there is typhoid fever, smallpox or malarial fever, because they can be prevented. As stated in one of our morning papers, just under the picture of your beloved President, "Half of them are preventable." Preventive treatment is the key to the medical world of today. It is worth far more to prevent a disease from coming into our midst, saving the lives that it would destroy, than it is to cure the sick, even if we could guarantee their cure. It was Alexander Pope who said, "The proper study of mankind is man." He spoke more wisely than he knew, the proper study of mankind *is* man, and when we properly understand man in all his relations, physical, mental and spiritual we will have accomplished a work that has taken all the generations of the world to accomplish.

I do not believe the statement from a poet who said, "Man never is, but always to be blessed." Man *is* blessed today, has been blessed all these years, and will be blessed all the years to come, and all he has to do is, with proper spirit and proper training, to carry out his obligations insofar as service is concerned. Yes, service; service is the slogan today. What will it profit a man if he goes out and destroys

and slays his thousands and his tens of thousands? The man who can render service to his family, to his community, to his neighbor, to his country, is the man whose name today is written in blazing letters upon the lintels and upon the doorposts of every home. It is not an exaggeration when we say that the value of the intelligent physician to the community cannot be overestimated. How can the community, the city, the town, the village, or even the country, get along without good physicians who come into every home at some time and stay the hand of death? It is he who drives disease from our borders, and instructs the people how to live wisely, intelligently and comfortably, and thereby honorably discharging his duty to both God and man. There is a fraternal feeling throughout the land, that accumulates with the years. It does not matter whether it is the medical or the legal profession, or some other fraternity, but as they get together and understand each other, and discuss their problems, they know each other better and their differences, which are always more largely from misunderstanding than from real causes, are forgotten. The brotherhood of man is being taught today; it is taught in the medical profession as it is in any other profession or vocation of whatever nature.

My countrymen, my friends, when I realize the power, the intelligence, the responsibility, there is here, I appreciate the importance of conventions like this, and it is a real pleasure to me, and a pleasure to the citizens of Austin, to have you here and to talk with you. I will not consume more of your time. We welcome you to your city. These granite walls were built with your money; these eleemosynary institutions are supported by your money. The State University belongs to you, and to us. We have a common interest here, and you but come to your own home. I say to you again, we welcome you, thrice welcome you to our homes, and we hope that you will come again as early as you can and stay with us as long as you will.

Dr. Gilbert: Address of welcome by Dr. G. M. Decherd, President of the Travis County Medical Society.

Address of Dr. G. M. Decherd.

It is indeed a pleasure to extend to you in the name of the Travis County Medical Society, a few words of greeting and of welcome. Our mayor has, as it were, presented to you the keys to the front door of our city. It remains for me to present to you the key to the side door, and the kitchen door, and the dining room door, for we want you to know that the whole city is at your service. Just keep your eyes fixed on these gorgeous ribbons that float so proudly in the dawn's early light from the southeast lapels of our coats, and when you find one with the word "Austin" on it, just march right up and grab that lapel in your hand and make your wants and wishes known. I may say, in a word of warning, that there is also in our city at this time a fraternal organization, and if someone approaches you making fantastic signs and giving you a peculiar grip, just bear in mind that he mistakes you for one of the "bretheren," and don't be afraid to go out and take dinner with him if he invites you.

I see before me the friends and former classmates of many of our Austin doctors. It may be that remembering our shortcomings and our outgoings you may have some pointed stories to tell of our college days. If such there be, in the interest of my colleagues and myself, I ask you to remember that this is the place where we reside, and please keep discreetly silent, in return for which, when the Association meets at some future time in your city, we will extend you the same courtesies.

We often have to go away from home to get the local news, and learn things about ourselves. I was very much interested in the write-up of Austin in the last Journal. It was a storehouse of information, but there was one regrettable omission, which I feel it is my duty to supply. The favorite indoor sport of our local poet is to compare the beauties of Austin to the beauties of Rome, invariably to the discredit of the latter, saying, "Rome has her seven hills, Austin has her seventy." But I sometimes think, and I hope this won't get any further, that there is a difference. Rome sits upon her seven hills; we are inclined to lie about ours. (Laughter).

Now, my friends, we sincerely hope that you will get a great deal of pleasure and profit out of your visit here, so that when you return to your homes you can tell the brethren when they meet and gather around you to hear about your visit in the pleasant vineyard, that Austin was yours, that the Capital of Texas belongs to the whole State. The doctors of this city and county will bear you in pleasant remembrance, and follow you with their best wishes, as you scatter to your homes in every part of this great State, to every city and town, every hillside and hamlet, from where the Red River overflows its muddy banks on the north, to where the soft Gulf breeze fans our southern shores, from Opelousas, Louisiana, on the east to our wild western plains, where the mighty longhorn lifts his tail high into the air and with one mighty effort leaps into the setting sun. (Applause and laughter).

Dr. Gilbert: I am sorry to announce that the next number on the program can not be rendered. Governor James E. Ferguson was called out of the city last night. He asked me to express his regret that he could not be here. Doctor Splawn, President of the State University, will address us next.

Address of Dr. W. M. W. Splawn.

We are most honored here in our Capital City to have with us today the representatives of one of the oldest, one of the most learned, one of the most useful of the professions. Probably I should confess how ignorant I am of medicine, and perhaps I can do that best by an illustration. You may have heard of the old pump maker, who was very sensitive as to an infirmity that he had, deafness. He was working at his trade by the side of a road when he observed approaching him a stranger, and he began to talk to himself as to how he would keep that stranger from finding out about his deafness. He said, "Now, when that man comes up he will ask me what I am doing, and I will say, 'I am making a pump,' and then he will want to know how long the pump is going to be, and I will tell him from here to that limb, and he will then inquire what it is worth, and I will tell him $2.50 a foot, and he will doubtless observe that he wouldn't give that much for it, and I will tell him that if he does not somebody else will, and that will close the conversation." About that time the traveler approached and spoke to the old pump maker, "Good afternoon." "I am making a pump." "Can you tell me how far it is from here over to the next village?" "About from here up to that limb." The stranger was somewhat taken aback by that, and being anxious to get to the village, inquired, "How much would you charge me, sir, to direct me to the village?" "About $2.50 a foot." The stranger said, "Well, if I didn't know you were crazy, I would get down and kick you into the middle of next week." "Very well, sir, if you don't someone else will." (Laughter).

Now, I fear that my knowledge of medicine is about as much as the knowledge of this deaf pump maker of the questions that were being propounded to him. Last evening I listened to a very able paper presented by one of our most distinguished lawyers,

in which the speaker was setting forth the reasons why we may expect the city of Dallas to have a half million people by 1950. That paper suggested a line of thought which we are all delighted to follow, the growth, the prosperity, of our beloved State. When we come to think of it, Texas now leads in several important respects. The East looks upon us as a state of farmers, and we do lead in agriculture. Last year the value of our agricultural products was more than that of Illinois and Iowa combined, they being the second and third agricultural states. But last year we also produced manufactured products with a value greater than that of our cotton crop. Wherever we go, men will point out to us the rapid growth of their respective communities, and they will begin to tell us of what we may confidently hope for within the next decade. This marvelous progress within our State has been made possible by the application of the discoveries of science to agriculture, to manufacturing, to transportation and exchange. The wonderful discoveries of scientists during the past 150 years ushered in what we are pleased to call an industrial revolution, making it possible for millions to live where only hundreds of thousands had been able to survive before. When Columbus discovered America we are told that there were half a million Indians in what is now Continental United States, that for some four or five hundred years there had been only a half million Indians in that vast territory; that under the Indian economy population had reached the point of saturation. Now, we have a hundred millions and we regard ourselves as yet in a pioneer country.

Why is it that 200 people are now able to live where one person was able to live three or four hundred years ago? It is because of the application of science to the ways of getting a living, and there is no profession that illustrates more perfectly this truth than the medical profession. The men of medicine have made the greatest possible application of scientific discovery and scientific truths. The first doctors were the old time medicine men, the priests of the primitive tribes. They came with their superstitutions, and if they found a man with malaria, his body wracked with fever and his head splitting with pain, they proceeded to beat the tom-toms in his ears with the hope of frightening away the evil spirits that brought the fever and the pain. As the centuries passed, men observed that certain treatment would bring certain results, and after centuries of empiricisms we developed doctors who were rather successful in treating the ordinary maladies and ailments. They discovered, for example, that quinine would cure malaria, but they didn't know the cause of malaria; they didn't know *why* quinine cured malaria. But in these recent years, men of medicine have become observers, scientific observers; they have come to investigate the causes of diseases, to observe broadly, to make inferences and then to check up on the inferences, and after much experimentation to give out scientific generalizations. They have found as a result of observation, of inference, of verification, that malaria is transmitted in a certain way, and that by killing off certain mosquitoes we laymen may be protected from that dread disease. Ten thousand other discoveries have been made in the laboratories and by the physician out in the village and in the countryside, who today is a scientific man.

We sometimes get the notion that the scientist is merely the man working in his laboratory; but the man in the hospital going from bed to bed in the ward, or from house to house in the town, or in the rural communities is, today, as much a scientist as the man who gives all of his time to the handling of tubes and other paraphernalia of the well equipped laboratory. One of our greatest colleges of medicine, as you know, called one of these scientists from his practice in a country village to come and join its staff. Today, when we are sick we know that when we call in the doctor he is not coming as a superstitious medicine man to get rid of an evil spirit by some sort of magic, nor is he coming with his rule of thumb; he is coming to make careful observation, and with all the modern facilities and equipment and aid in observing he will come nearer to finding out what the trouble is than any doctor that has gone before. We who are not of the medical profession, we laymen, always rejoice to look upon a group of doctors, for we recognize in them men who are interested more in their neighbors than in themselves. You are one profession that has established the reputation of trying to get rid of the very thing that we laymen sometimes look upon as justification for your existence. You combat disease; you work to stamp out disease; you teach the people the laws of health; you point out how to keep well; you chide your patients for neglecting the rules and laws of health; you seek to remove from communities the causes of contagion and of plague; you stand as the guardians of the health of all the people.

When we come to consider a medical college we do not think about, or should not, the money it will cost, but how efficient we can make it, for it is not a matter of how much we may spend upon the student, but their scientific attainments, their capacity after they come out, to guard and protect the health of the people. Our investment in a medical college is merely a form of health insurance taken out by all of the people, and it is the most reasonable insurance that has yet been devised. When we think that this State spends only $200,000 a year on its medical college, and think of the thousands of graduates of that college who are serving in their respective communities, and of the sixty to a hundred who are to come every year and join them; when we think of the hundreds of thousands of people to whom these physicians and surgeons minister, we can realize how great a value we are receiving for so small an investment. I was very much interested the other day in comparing the cost of maintaining a medical college now with fifteen years ago. Fifteen years ago Johns Hopkins was spending $100,000 a year on medicine. If that institution had merely maintained the efficiency of 1910, it would now be spending $175,000; instead, it is spending $550,000. Harvard, in 1910, had a budget for its medical college, of $250,000 a year; now its budget is $545,000. Washington University fifteen years ago had a budget of $52,000 a year. It could maintain that college today on $91,000 with the same efficiency that it did fifteen years ago. Instead it is spending on a more efficient institution, $357,000. The University of Iowa had a budget for its medical college in 1910, of $35,000; this year it was $350,000, an increase of tenfold. Yale, when I was a student there, was spending less than $50,000 a year on its medical college; in 1910, still less than $50,000; this year, $375,000. We hear a great deal of the progress made at MacGill University; ten years ago the budget for its medical college was $90,000; this year it is $345,000. There has been greater progress made in America in medical education in the last decade than in any other kind of education. We have made this wonderful progress at a time of increasing prices. The wealth that has been poured out by private individuals and by states on our medical institutions, is most encouraging. It is a most convincing testimony of the value of your service to your constituents. If you were not rendering acceptable, appreciated service, the people would not rally to

this call for improvement in the facilities of our medical colleges.

A number of you are alumni of the University of Texas; some of you have attended the main branch. We extend to each of you a most cordial invitation to come out to the University, the main branch, while you are here, and we will ask you to bring your friends who have not attended the University of Texas. We hope that each member of this Association will visit the University. It is the school of all the people of Texas. It is supported by all the taxpayers. It invites to its walls the sons and daughters of every class of our people. We ask all to come who are prepared by training and by character to make proper use of its facilities. Many of you, no doubt, have personal friends among the faculty. I am sure you have friends and acquaintances among the students. By calling for a student directory you can locate any student, and get his or her telephone number. I hope that a number of you will call up these boys and girls from your home town. Let them know that you are here, and they will be delighted to show you about the University if you have the time and will visit them.

Mr. Chairman, again permit me to say that we in Austin are most happy and most honored to have this gathering of scientific men. (Applause).

Dr. Gilbert: President Dr. Bledsoe needs no introduction to this audience. He will take charge of the meeting.

Response and President's Address.

President Dr. M. F. Bledsoe of Port Arthur: It is, indeed, an honor to respond to these splendid addresses of welcome. I thought I probably would have something worth while to say this morning, but I find myself somewhat in the position of the old fellow of whom I heard when I first came to Texas twenty odd years ago. He lived in East Texas. He was quite a pioneer, one of the men who helped to make Texas. By reason of his influence in his community he was elected to the Legislature, by some twenty-five or thirty, or forty counties. Now one of these same counties will have three representatives. He thought he would be expected during his tenure of office to make some sort of a speech. He had been accustomed to talking to small audiences, where he could feel perfectly at home and free. So one day he got the speaker's attention and said: "Mr. Speaker." The Capitol had just been completed then, and he said, "Mr. Speaker, where this great, magnificent building now stands once was a howling wilderness. Mr. Speaker, I say where this great, magnificent building now stands, once was a howling wilderness. Mr. Speaker, I say where this great, magnificent building now stands, once was a howling wilderness—and I wish to God it was one right now." (Laughter). I am not quite as lost as that, but being an ordinary doctor means that I am not a speechmaker. I had no idea when I looked on the program that this county society would put before us a doctor —does he practice regularly?—who is a real orator.

If we take the word of the program, we will need no further welcome to Austin. Everything has been provided to make our time and our stay here profitable, pleasant and comfortable. I am sure that this audience appreciates, as I do, the splendid talks by the Mayor and the President of the University. They were, indeed, inspiring to us who labor and strive and who do not often have the opportunity to listen to talks of this kind. You know, we sometimes wonder if it *is* worth while; but when we hear men of this type, we appreciate that it is worth while.

Since I have to burden you with my stated address, I will simply say on behalf of the State Medical Association, Mr. Chairman, and other speakers, that we indeed appreciate the welcome to your city. We are glad to be able to come to our own State Capitol, and visit our own grounds, as some of you have correctly put it. We are glad again to mingle with the profession of Austin, which has always stood out in the forefront of the profession. We are glad to place our ladies in the hands of the good ladies of Austin, who have provided such splendid entertainment for them.

It is provided by the By-Laws of our Association that the President shall deliver an Annual Address. I have selected for my subject, "An Epitome of Organized Medicine, Its Purposes and Duty." (The President's address appears elsewhere in this number of the Journal, beginning at page 51.

President Bledsoe: The Fifty-ninth Annual Session of the State Medical Association of Texas is now open for any business that may come before it. Mr. Secretary, have you any business proper to come before this meeting?

The Secretary: None on the Secretary's table, Mr. President.

President Bledsoe: Have you any announcements, Mr. Chairman?

Dr. Gilbert: No, sir.

President Bledsoe: I want to extend to all our members a cordial invitation to come over to the House of Delegates and see what is going on. I am pleased to report that at this hour last year our paid membership was 3,495; this year it is 3,190, making a loss of about nine per cent; but there have been more county societies reported this year than for several years past.

Dr. Oscar Dowling, of New Orleans, State Health Officer of Louisiana, and a member of the Board of Trustees of the American Medical Association, is here to greet us.

Dr. Dowling: Mr. Chairman, I bring you greetings from the Board of Trustees of the American Medical Association, and the State Board of Health of Louisiana. We look to Texas for a continuation of the wonderful development that has taken place in the past, and possibly more wonderful still under the leadership of your new Governor. (Applause).

President Bledsoe: Dr. G. A. Hendon, of the University of Louisville, Louisville, Kentucky. (Applause).

Dr. Hendon: It gives me a great deal of pleasure to bring greetings of the Alumni and friends of the University of Louisville. (Applause).

President Bledsoe: The Rev. George Green, pastor of the First Baptist Church, will deliver the benediction.

Benediction.

Holy Lord God Almighty, the whole earth is filled with Thy glory. We acknowledge Thee, the giver of every good and perfect gift; Thou hast given us life; Thou hast ordained life, and Thou hast made these men the students of life, and we thank Thee for the glorious revelations which Thou hast made of the scientific powers Thou hast given us. And may each reverently bow in Thy presence, acknowledging Thee always as God. We ask it in Jesus' name. Amen.

There being no further business, the meeting stood adjourned.

MINUTES OF THE HOUSE OF DELEGATES.

First Day, May 7.

The House of Delegates was called to order by President Dr. M. F. Bledsoe, of Port Arthur, at 1:30 o'clock p. m., in the Elks Club, at Austin.

President Bledsoe: The House of Delegates of the Fifty-ninth Annual Session of the State Medical Association will now come to order. We will have the roll call, by the list submitted in the First Report of the Committee on Credentials.

The Secretary: (After calling the roll.) Mr. President, there are 93 members present, which is more than half of the delegates registered.

President Bledsoe: It being shown that there is a quorum, the House of Delegates will come to order. The Secretary will announce the Reference Committees of the House.

The Secretary: The President has appointed the following Reference Committees:

REFERENCE COMMITTEES.

Reference Committee on Credentials—Dr. M. M. Morrison, Denison, Chairman; Drs. H. R. Giles, Corpus Christi; Jas. E. Morris, Madisonville; W. P. Coyle, Orange, and T. A. Taylor, Lufkin.

Reference Committee on Reports of Officers and Committees—Dr. J. N. White, Texarkana, Chairman; Drs. D. M. Higgins, Gainesville; J. W. Burns, Cuero; V. R. Hurst, Gregg, and S. P. Vineyard, Amarillo.

Reference Committee on Resolutions and Memorials—Dr. J. M. Frazier, Belton, Chairman; Drs. J. W. Goode, San Antonio; J. J. Terrill, Dallas; Preston Werly, Pineland, and J. B. Swonger, Beaumont.

Reference Committee on Finance—Dr. C. R. Hannah, Dallas, Chairman; Drs. S. H. Watson, Ellis; Luther Kusch, Gay Hill; W. N. Wardlaw, Childress, and A. C. DeLong, San Angelo.

Reference Committee on Revision of Constitution and By-Laws—Dr. C. W. Goddard, Austin, Chairman; Drs. R. E. Bowen, Bexar; C. R. Hartsook, Wichita Falls; C. P. Yeager, Kingsville, and J. W. Ward, Greenville.

Reference Committee on Scientific Work.—Dr. J. H. McLean, Fort Worth, Chairman; Drs. D. L. Eastland, Waco; E. D. Crutchfield, Galveston; R. B. Ehlinger, Bryan, and N. H. Poth, Seguin.

The Secretary: The President desires that the committee chairmen call their committees together immediately upon adjournment of this House, and announce when they will meet and where, for the purpose of hearing members of this Association who desire to go before them with any matters pertaining to the subjects that have been referred to them.

The President: Reading of the minutes of the previous meeting.

The Secretary: I have here the minutes of the previous meeting as edited for publication. The original, verbatim report of the transactions of the House of Delegates may be had, of course, but it is rather voluminous.

Dr. J. D. Osborn, of Cleburne: I move the minutes be adopted as printed in the June JOURNAL.

Dr. Thomas H. Cobble, of Rusk: I second the motion.

The motion was then put and duly carried, and the minutes of the previous meeting of the House of Delegates, as published in the June, 1924, JOURNAL were declared adopted.

The President: It has been the custom for the President to make some suggestions to the House of Delegates, and I desire to call your attention to the following matters:

PRESIDENT'S MESSAGE.

Prior to the Fort Worth meeting, two years ago, as you know, our annual dues had been $5.00 per member, divided as follows: $2.00 to the General or Association Fund, $2.00 subscription to the JOURNAL and $1.00 for the Medical Defense Fund. In view of the fact that everything else had increased in price, it was more than evident to those of us who had given years of study to this Association that there should be more than $2.00 for the Association fund, if any activities were to be carried on beyond simply holding meetings. As Chairman of the Board of Councilors, at the Fort Worth meeting, I recommended in a supplementary report that volunteer contributions be solicited for carrying on certain activities of the Association. This suggestion was unanimously indorsed. In line with this program, during the next twelve months more than $12,000.00 dollars had been subscribed, and over $9,000.00 had been received by the State Secretary. Some thought this money was to be spent for publicity and educational purposes; others thought it was for law enforcement purposes. Others, myself included, thought the money should be used for any and all purposes to make this organization one worthy of its name.

As the money became available, certain necessary, fixed expenses were incurred. For instance, an Assistant Secretary-Editor, an Assistant to the President and Secretary (Advertising Manager), extra stenographers, etc. Realizing that it would not do to depend altogether on voluntary contributions, the House of Delegates last year raised our annual dues to $15.00, thus giving $12.00 per member, instead of $2.00, into the General or Association Fund. The action of the House of Delegates in thus raising the dues was, indeed, a mark of confidence in our officers. It was, however, a rather precipitate action, for no officer or committee had furnished even a tentative estimate of the cost of carrying out the policies adopted at that time. There was no definite machinery, in other words, for properly utilizing the increases in dues.

Your attention is directed to the annual report of the Board of Trustees, where it will be found that there is a rather large increase in unappropriated funds this year. In other words, the money has not been wasted, and a good part of it is still on hand for our disposal. You are, of course, aware of the fact that all funds accruing, not otherwise appropriated, are received and held by the Board of Trustees. In this connection, may I remind you that during the discussion on the subject of this raise in dues last year at San Antonio, it was your humble servant who suggested that the dues be not all spent on an educational campaign, but that some of it be placed in the General Fund? The House of Delegates recommended, specifically, that an Educational and Publicity Campaign be launched. The Council on Legislation and Public Instruction were directed to request of the Board of Trustees additional funds to finance the campaign. This was done. The Council, however, requested only about $7,500. (See report Council on Legislation and Public Instruction.) It will be noted in this report that as soon as practicable after adjournment of the House of Delegates last year, I called a conference of the Council on Legislation and Public Instruction, the Board of Trustees and the Board of Councilors, to consider plans for the educational and publicity campaign. We recognized that there might be some who did not appreciate the necessity for any advance actitvity. Accordingly, and to be as fair as our duty would permit, we agreed to not operate within the jurisdiction of any county society that objected to the policies of the authoritative body from which it received its charter and right of existence as an integral part of organized medicine. In this connection, I regret to report that there was one society which officially took that position, the Harris County Medical Society.

The House of Delegates may have assumed that the balance, or a large part of the balance, of funds, if any, when the money became available, would be spent by the Board of Trustees in defraying expenses of officers and committees in the execution of its further stated policies, and here again you are re-

minded that this fund is just now becoming available. The by-laws prior to one year ago, called for only $2.00 per member for our general activities; that was all the Board of Trustees had to spend, and they have carefully guarded this fund from undue expense accounts. When the House of Delegates enlarged our activities and raised the dues, it failed to provide how the money should be spent other than for educational purposes. Thus we have in one year's time accumulated an unduly large surplus. Probably more of this money would have been appropriated had our officers made proper requests for it. The exigencies arising will not always permit the assembling of the various councils, and the Board of Trustees cannot afford to assemble too frequently. No one is to be blamed more than another, unless it be the committee on Revision of the Constitution and By-Laws. Two years ago President Dr. Becton recommended a complete revision of our Constitution and By-Laws. The House of Delegates adopted his recommendation and a committee was appointed, but it did not complete its task last year. So I came into office in the face of the greatest program of activities ever adopted by any House of Delegates in any state, with the tremendous handicap of a 300 per cent increase in dues, with an inadequate Constitution and By-Laws and few specific instructions from the House of Delegates. Only a small proportion of its increased dues should be used.

You will note that the Committee on Revision of the Constitution and By-Laws has now reported, and are offering for our consideration a total and complete revision. If it pleases this House to adopt the proposed instrument, the Board of Trustees will submit a budget to the House of Delegates at each Annual Session. The Trustees will arrive at their figures through suggested budgets from the President, the Executive Council, the Board of Councilors, and others.

In the absence of any precedent or requirement of the Constitution and By-Laws, with your permission, I desire to submit the following tentative budget:

For the next year the following amounts are believed to be necessary, over and above the original dues of $5.00 per member:

Assistant Secretary-Editor, salary	$3,600.00
Membership Secretary, salary	2,500.00
Membership Secretary, traveling expenses	2,500.00
Stenographer, salary	1,200.00
	$9,800.00
Legal and Legislative	$ 1,500.00
Increased amount to the JOURNAL	1,500.00
Librarian	2,000.00
Officers and Committees, expenses	1,500.00
	$16,300.00

Experience has shown that the employment of an Assistant to the Secretary-Editor is fully justified. The Membership Secretary is necessary. This position has for some time been called "Advertising Manager." His duties have been everything, however. The place is now filled by Mr. Reese. An extra stenographer is essential.

I submit that, with our increased activities, if you do not defray the necessary expenses of your officers, you are putting a premium on your offices, and you cannot expect anyone to accept these responsibilities who has not been tremendously successful in the matter of personal finances. By failing to provide the necessary expenses you rob the Association of the services of some of our best members.

It will be noted that with the original $5.00 per member, the above budget would call for $10.00 per member. It is believed that this amount will maintain an efficient office and outside organization, that will make this Association really worth while, and of real service to its members and the public. Through the Membership Secretary, a great many additional members will be added. It is believed that a librarian can be added, who can furnish members extracts and data on scientific and other subjects, on request, within three or four days. As it is now, we have to patronize the American Medical Association, the American College of Surgeons, and other out of State libraries for quick reference. Any additional activities must be provided for by this House of Delegates. And in this connection, if this House decides to enter into further educational and enforcement activities, I suggest that a request for a reasonable amount of the now unappropriated funds, be made of the Board of Trustees.

You have noticed in the April JOURNAL, that our President-Elect, Dr. Rosser, believes that the time has come when we should begin to do more toward assisting in the prosecution of violators of the Medical Practice Act. As representatives of your various county societies, you shall be the judges as to that. It is not my purpose to influence you either way, but I suggest that if you adopt the budget above outlined, the State Medical Association will have an agent in the person of the membership secretary, who while visiting the various county societies soliciting members may investigate the records and determine whether all persons practicing medicine are registered under the law. This information could be furnished the secretary of the county society, and should the society desire to assist the officers whose duty it is to enforce the law, they will have the information at hand necessary to proceed.

May I not here call your attention to the fact that our members depend entirely too much on rumor and imagination in regard to our work and do not seek facts. A careful reading of the JOURNAL, particularly of the June number of each year, where a correct report of the action of the House of Delegates will always be found, will clarify much misunderstanding. For the information of those who thought that the State Medical Association had gone into and should go into the enforcement business, and with no intention of saying whether it should or should not, I must say that such action has never yet been authorized by the House of Delegates, and your officers have always been careful to follow the instructions of the House of Delegates. It was to be expected that any law as important as the Medical Practice Act, as amended by the Thirty-eighth Legislature, carrying an injunction feature, would be tested through the courts. Within the last six weeks the Medical Practice Act has been sustained by the Court of Appeals and the Supreme Court of the State, on a case appealed from Hunt County, and within the last few days the Supreme Court has refused a new hearing on its unanimous decision upholding the law. It is now up to the enforcement officers, and the way is clear.

It is suggested that this message be referred to the Committee on Finances, with the request that they confer with the Chairman of the Board of Trustees, the Secretary, the Chairman of the Board of Councilors, and others, before reporting to this House.

Respectfully submitted,

MURFF F. BLEDSOE, President.

The address of the President was referred to the Reference Committee on Finance.

The President: You will assist our reference committees if you will appear before them and discuss the matters in hand. If you are not satisfied with their recommendations, you may discuss the subjects

in hand on the floor of the House. The Report of the Secretary is the next business in order.

REPORT OF THE SECRETARY.

By common consent of those in authority, the rules governing the collection of dues and rendering of annual reports, have been so relaxed as to care for delinquent reports up to the last minute. In other words, this office has held the membership lists open until this report had to go to press. This has worked a hardship on the office force, but the additional work and worry have been gladly assumed. There has been much uncertainty as to the amount of dues to be paid by each member and the exact per capita amount to go to the State Secretary. This has necessitated much correspondence and has occasioned some confusion. Many secretaries have hesitated to approach their members in the collection of the increased dues, instinctively feeling that they would be held accountable for what some profess to believe to be an imposition. The fact that they were in nowise responsible, strangely enough, was evidently not apparent to many. That this is true is evidenced by numerous letters the State Secretary has received, complaining that the dues were increased without due consideration and for selfish reasons, because of which fact they protest their payment, and some have even appealed to the American Medical Association for relief.

The truth of the situation is, of course, that the House of Delegates, acting within its constitutional limit and in the face of a contingency that had to be met immediately, raised the dues, and as believers in representative democracy as a medium of government, we could do no less in all honor than to support our agents in this and other acts, no matter how much we may disagree with them in the premises. After all, the sum demanded of each of us is not great, and doubtless much less than most members pay to any number of organizations to which they belong, and which mean much less to them than their own profession should mean. One member even urged as an argument why he should not pay his dues, that he had to pay so much for his lodge membership, so much to his luncheon club, so much to his country club, and so on, overlooking the fact entirely, as already said, that none of these were of such importance to him as the State Medical Association, either now or hereafter. However all of that may be, the truth remains that neither the county society secretary nor the State Secretary, could be held accountable for the increased dues, and county secretaries should not have been put to additional trouble in collecting dues. This is not to say that there was a great deal of trouble, at that, and the State Secretary feels very much encouraged that what might have been a serious crisis has apparently passed with very little unfavorable reaction.

Last year, at the time this report was compiled, there were 3,495 paid up members. At this time (May 1) there are 3,136 members, an apparent loss of 359, or something more than 10 per cent. Doubtless this percentage of loss will be greatly decreased before the Annual Session convenes.

The following societies have not filed annual reports: Leon and Panola.

In addition to those not reporting at all, the following societies have reported less than the required five members: Reeves-Ward-Pecos, Scurry-Dickens-Kent, San Patricio-Aransas, Marion, Menard-Kimble and Waller.

It will be noted that there are fewer county societies which have not filed their reports than there were last year. This state of affairs is quite complimentary to county society officers and the Board of Councilors.

There has been only one change in the list of component county societies during the year. The Jack-Young County Medical Society, because of certain local changes, found it advantageous to separate, with the idea of organizing two instead of one society. Young County was organized at once and chartered, but so far there has been no application for charter from the physicians of Jack County.

The State Secretary continues to be called upon for decisions that should properly be required of the Councilor, or the Board of Councilors, and as before said, while he has no objection to discussing these matters so far as he is personally concerned, his views might easily not comport with those of the Councilor, with a resulting appearance of disagreement, to the confusion of members concerned. The State Secretary invariably refers such inquiries to the responsible Councilor, with suitable explanations to the inquirer. The official opinion of the State Secretary must be confined to the affairs of his own office, and between his office and the office of the county society secretary. Even then, there are questions which must be settled by the Board of Councilors.

Also, this year as heretofore, members of last year have suddenly discovered that they are not members this year, and that there is not time to renew through regular channels before the Annual Session. It is not possible for the State Secretary to receive money direct from any member; it must come through the secretary of a county society, or, in the absence of the secretary, through a responsible officer of the society. There is no authority for receipt of this money even through the Councilor. This situation should be borne in mind, especially by those who expect to attend the Annual Session and register as members.

There are still too many discrepancies in the matter of record keeping in county societies. The difficulties confronting county society secretaries are appreciated, and it is hardly possible to advise them at long range, but it would seem that the only possible way to conduct the affairs of any organization such as ours, is to consider them as of paramount importance, and as if service rendered was to be paid for handsomely. Disregard of our obligations to county society secretaries certainly does not inspire them with an overpowering idea of their importance. Thus we establish a vicious cycle. We had better go to the other extreme. The records of a county society should be as carefully kept, to say the least of it, as the records of any secret society to which we belong, and yet where is there a county seciety which looks at the matter in this light? Our membership card should be as precious to us as the membership card in any organization to which we belong. If it is necessary for us to devise secret work, pass words and the like, by all means let us do it. The State Secretary is most certainly anxious and desirous of coöperating with county society secretaries in these and other matters pertaining to their several societies, regardless of the amount of work involved, and they are assured that the services they render, frequently under very adverse circumstances, are highly appreciated.

Finally, at the conclusion of this year as never before, the State Secretary feels grateful to both officers and members for their always courteous treatment and ready coöperation in any matters between them.

Fraternally submitted,

HOLMAN TAYLOR, Secretary.

The Report of the Secretary was referred to the Reference Committee on Reports of Officers and Committees.

The President: The next order of business is the Report of the Treasurer.

Dr. J. H. McLean: Dr. Beall, the Treasurer, had to leave on account of an appointment with a Scientific Section. He asked me to submit his report.

REPORT OF TREASURER.

I would respectfully represent that there is in the treasury of the Association as of April 23, 1925, in cash, the sum of $60,549.65, of which $59,914.43 is on deposit with the First National Bank, of Greenville, Texas, and $555.22 is in the First National Bank of Fort Worth, Texas, and $80.00 is in the hands of the Secretary. The cash receipts for the year were $63,924.32; the cash disbursements were $50,591.09.

I hold a Liberty Bond of the Fourth Issue bearing No. F00028606 for the amount of $5,000.00. I hold receipt from the State National Bank of Houston, Texas, for two first mortgage notes, the principal of which totals $11,000.00. The interest received on these investments during the year is as follows: On Liberty Bond, $212.50; on Mortgage Notes, $957.00, and on the account with the First National Bank of Greenville, $2,136.73.

Respectfully submitted,

K. H. BEALL, Treasurer.

We certify the above to be correct:

SCALES & MOTHERSHEAD,
Certified Public Accountants.

The Treasurer's Report was referred to the Reference Committee on Finance.

The President: Report of the Board of Trustees:

Dr. John T. Moore of Houston, Chairman of the Board, then read the report as follows, with appropriate comments:

REPORT OF BOARD OF TRUSTEES.

Your Board of Trustees has continued to look carefully after the expenditure of the funds of the Association, keeping constantly in mind the general aim of the House of Delegates and the officers of the Association, to build up the most efficient service possible for the medical profession of the State. We have endeavored to increase the earnings of the Association and curtail expenses, but have not lost sight of the fact that service is our principal objective.

We have gradually increased the working force of the Central Office so as to care for the routine affairs of the Association in the most efficient manner possible and at the same time take care of the unprecedented exigencies of the year's work. These extra demands have, as a matter of fact, disturbed the routine work of the Central Office considerably. It has not been possible to so organize as to carry on smoothly and at the same time respond to the demands of large activities which might not be considered permanent, and do it economically. There have been some delays as a result, but we have felt that it was better to invite criticism in this regard than to waste money in the employment of the temporary help necessary to avoid delay.

In this connection, we may say that we have financed the publicity and educational campaign to the extent required by the Council on Legislation and Public Instruction, taking care only to see that the money appropriated for this purpose was economically expended. We have endeavored to estimate without prejudice the success of the campaign of publicity and education, recognizing that it was an unprecedented and considerable undertaking and that it meant much to the medical profession and the public, one way or the other, and we feel that we can say without hesitation that from whatever angle the endeavor is viewed, it was an economic and financial success, which is our particular interest. We feel that both the medical profession and the public have been given an insight into the relative values of medical service that will redound to the benefit of all concerned, and that as time goes on it will be more and more evident to the casual observer that both the medical profession and the dependent public will be greatly benefited by a mutual and complete understanding, such as this campaign will eventually produce.

We have provided in our budget for a definite expansion of the JOURNAL to the extent necessary, we think, to take care of numerous district and special society papers that have heretofore had to be denied publication because of lack of space. We think the additional amount allowed will also provide a better quality of paper and more and better illustrations. Heretofore we have felt it incumbent upon us to make the JOURNAL pay its way, and with a few exceptions, this has been done each year since the inauguration of this service, in 1905. With the increased dues the opportunity is now offered to better this service, and we are quick to take advantage thereof. By thus improving the JOURNAL it is felt that our advertising income will be automatically increased, which increase we are counting on for still better service.

In this connection, we would respectfully suggest that Section 1, Chapter XIV, of the By-Laws (revised version), be amended so as to set aside for subscription to the JOURNAL the sum of $2.50, instead of $2.00 as at present allowed. By doing this, the increase in the size and quality of the JOURNAL above contemplated may be made without incurring such a large deficit. Deficits are never desirable in a financial report, no matter what the circumstances.

We have, in conjunction with the Auditor and the Secretary-Editor, carefully prepared a tentative budget, which will be found in detail in the report of the Auditor. It will be noted that the expansion in service above referred to has been allowed, and in what terms. It will be noted that while the budget involves the expenditure of the present $15.00 dues, based on a membership of 3,000, an amount equivalent to $5.00 per member is used to restore to the General Fund the $7,500.00 advanced for the publicity campaign, the balance going to the General Fund as surplus. In other words, by the exercise of close economy and normal expansion of our work, including modest but doubtless efficient educational and publicity endeavors, may be hereafter cared for on a $10.00 per capita assessment, and we do not hesitate, and it doubtless is within our province to do so, to recommend that the House of Delegates fix the dues at $10.00 instead of $15.00, as at present.

We have stood squarely behind the Council on Legislation and Public Instruction in financing its legislative policies, having a care here as elsewhere, that the money was economically expended. We feel that the legislative endeavors of the Association have been eminently successful, and at a moderate cost.

While the Board has declined to make an oppropriation to care for the installation of a scientific exhibit at the Austin session, it desires to announce that it is in entire sympathy with any enterprise of this sort which will be taken advantage of by our members, and doubtless will make the necessary appropriations when the Council on Scientific Work

has prepared a definite, continuing plan which gives promise of value received.

The Board continues to support with the necessary appropriations, the work of collecting material for the contemplated medical history of Texas, and is pleased to report satisfactory progress. It will be understood that work of this nature cannot be rushed. There is considerable valuable material now in hand, and it is anticipated that as soon as the affairs of the Association have been again reduced to a routine, definite work at compiling the data and composing, the history will be begun.

In submitting the following Auditor's report, the Board points with pride and pleasure to the very substantial fund it has accumulated. It is felt that this fund is an insurance against possible disaster or lean years to come, and that in the meanwhile the interest accruing therefrom is no small item. If this surplus were to be looked upon merely as insurance, it would be ample for the purpose, but it should be considered that it is paying its own way while it is assuming proportions, and eventually it will be sufficient in size to warrant the Association in establishing a safe and satisfactory home, in accordance with the long established and approved policy of the Board. This surplus, it will be remembered, has been accumulated gradually, so as not to curtail the activities of the Association or make unnecessary demands on our members. As a matter of fact, the Auditor's reports will show that it has increased on an average of considerably less than $2,000.00 per year in the twenty years that we have been operating on the present basis.

The Auditor's report follows:

AUDITOR'S REPORT

STATE MEDICAL ASSOCIATION OF TEXAS

STATEMENT OF ASSETS AND SURPLUS AS OF APRIL 23, 1925

ASSETS

Cash in Banks and on Hand:		
Cash with Treasurer	$59,914.43	
Cash with Secretary	555.22	
Cash in Secretary's Office	80.00	$60,549.65
Investments:		
Liberty Bonds	$ 5,000.00	
First Mortgage Loans	11,000.00	
Note Receivable	75.00	16,075.00
Other Assets:		
Accounts Receivable—Advertising	$ 2,843.97	
Prepaid Expense-Annual Meeting, 1925	7.55	
Prepaid Expense—Railroad Scrip	26.45	2,877.97
Furniture and Fixtures	$ 2,206.79	
Less Depreciation Reserve	568.24	1,638.55
Total Assets		$81,141.17

RESERVES AND SURPLUS

Reserves:		
Unearned Dues—Association Fund	$33,936.00	
Unearned Journal Subscriptions—Members	5,656.00	
Unearned Journal Subscriptions — Non-Members	9.75	
Unearned Dues—Medical Defense Fund	2,828.00	$42,429.75
Surplus:		
Association Fund	$ 6,346.07	
Journal Fund	4,389.61	
Medical Defense Fund	13,364.60	
Collection and Preservation of Records	92.15	
Unappropriated Fund	14,518.99	$38,711.42
Total Reserves and Surplus		$81,141.17

STATE MEDICAL ASSOCIATION OF TEXAS

SUMMARY OF SURPLUS

April 23, 1924, to April 23, 1925

Total Surplus, April 23, 1924			$52,006.22
Decreases in Surplus:			
Public Health and Legislation Fund—Excess of Disbursements over Subscriptions		$12,839.71	
Collection and Preservation of Records—Disbursements		316.65	
Association Fund—Deficit		2,141.06	
Notes Receivable Charged Off		123.54	
		$15,420.96	
Increases in Surplus:			
Journal Fund	$ 56.00		
Medical Defense Fund	979.11		
Unappropriated Interest	1,091.05	$ 2,126.16	
Net Decrease in Surplus			$13,294.80
Total Surplus, April 23, 1925			$38,711.42

STATE MEDICAL ASSOCIATION OF TEXAS

ANALYSIS OF SURPLUS

April 23rd, 1925

Association Fund:			
Surplus, April 22nd, 1924		$ 8,487.13	
Earnings 1924-25	$ 8,533.87		
Expenses 1924-25	10,674.93		
Deficit 1924-25		2,141.06	
Surplus, April 23rd, 1925			$ 6,346.07
Journal Fund:			
Surplus, April 22nd, 1924		$ 4,333.61	
Earnings 1924-25	$22,288.49		
Expenses 1924-25	22,232.49		
Profit 1924-25		56.00	
Surplus, April 23rd, 1925			$ 4,389.61
Medical Defense Fund:			
Surplus, April 22nd, 1924		$12,385.49	
Earnings 1924-25	$ 4,730.81		
Expenses 1924-25	3,751.70		
Profit 1924-25		979.11	
Surplus, April 23rd, 1925			13,364.60
Public Health and Legislation Fund:			
Surplus, April 22nd, 1924		$ 5,607.34	
Subscriptions 1924-25		714.00	
Transfer from Unappropriated Fund		7,232.37	
		$13,553.71	
Disbursements 1924-25		$13,553.71	
No Balance, April 23rd, 1925			
Collection and Preservation of Records:			
Surplus, April 22, 1924		$ 108.80	
Transfer from Unappropriated Fund		300.00	
		$ 408.80	
Disbursements, 1924-25		316.65	
Surplus, April 23, 1925			92.15
Unappropriated Fund:			
Surplus, April 22nd, 1924		$21,083.85	
Interest Earned 1924-25		1,091.05	
		$22,174.90	
Transfer to Other Funds	$ 7,532.37		
Notes Receivable Charged off	123.54	7,655.91	
Surplus, April 23rd, 1925			$14,518.99
Total Surplus, April 23rd, 1925			$38,711.42

STATE MEDICAL ASSOCIATION OF TEXAS

COMPARATIVE STATEMENT

INCOME AND EXPENSES

ASSOCIATION FUND:

Income:

	1923-24	1924-25	Increase	Decrease
Membership Dues	$ 7,446.00	$ 7,542.00	$ 96.00	
Interest Earned		991.87	991.87	
	$ 7,446.00	$ 8,533.87	$1,087.87	

Expenses:				
Annual Meeting	$ 1,563.00	$ 1,301.53		$ 261.47
Legislative	960.75	1,627.18	666.43	
Officers' Expense	497.26	851.20	353.94	
Salaries	3,181.81	5,288.76	2,106.95	
Secretary's Office	1,101.01	1,046.93		54.08
Miscellaneous	157.66	559.33	401.67	
	$ 7,461.49	$10,674.93	$3,528.99	$ 315.55
Deficit	$ 15.49	$ 2,141.06	$2,125.57	

JOURNAL FUND:

Income:				
Members' Subs.	$ 7,446.00	$ 7,542.00	$ 96.00	
Non-Member Subs.	51.00	36.75		14.25
Sale of Journals	3.25	44.05	40.80	
Sale of Advertising	15,356.15	14,401.19		954.96
Interest Earned		264.50	264.50	
	$22,856.40	$22,288.49	$ 401.30	$ 989.21
Expenses:				
Cost of Printing and Distributing	$13,627.23	$13,294.95		$ 332.28
Administrative	2,262.56	1,927.39		335.17
Salaries	6,363.04	6,457.23	94.19	
Miscellaneous	729.07	552.92		176.15
	$22,981.90	$22,232.49	$ 94.19	$ 843.60
Deficit 1923-24	$ 125.50			
Surplus 1924-25		56.00	181.50	

MEDICAL DEFENSE FUND:

Income:				
Membership Dues	$ 3,722.00	$ 3,772.00	$ 50.00	
Interest Earned	509.85	958.81	448.96	
	$ 4,231.85	$ 4,730.81	$ 498.96	
Expenses:				
Attorney's Fees	$ 1,364.08	$ 3,143.70	$1,779.62	
Administrative	637.15	608.00		29.15
	$ 2,001.23	$ 3,751.70	$1,779.62	$ 29.15
Surplus	$ 2,230.62	$ 979.11		$1,251.51

STATE MEDICAL ASSOCIATION OF TEXAS
ANALYSIS OF EXPENSES
April 23, 1924, to April 23, 1925

ASSOCIATION FUND:

Annual Meeting Expense:		
Badges	$ 181.54	
Railroad Identification Certificates	10.75	
Printed Reports and Programs	323.80	
Reportorial Work	785.44	$ 1,301.53
Legislative Expense:		
B. Y. Cummings	$ 1,150.00	
Jeff L. Reese	294.91	
C. L. Black	25.00	
Secretary's Expense to Austin	87.27	
Postage and Telegraph	70.00	$ 1,627.18
Officers' Expense:		
P. C. Coleman	$ 29.00	
Stationery	63.40	
W. B. Thorning	54.75	
Secretary to A. M. A.	164.93	
Secretary's Other Traveling	539.12	$ 851.20
Salaries:		
Secretary	$ 2,086.67	
D. R. Venable	900.00	
Jeff L. Reese	600.00	
Stenographers and Bookkeeper	1,702.09	$ 5,288.76
Secretary's Office Expense:		
Rent and Janitor Service	$ 499.16	
Office Supplies	123.43	
Stationery and Printing	105.98	
Telephone and Telegraph	132.07	
Postage	154.76	
Express	1.53	
Binding Journals	30.00	$ 1,046.93
Miscellaneous:		
Auditing	$ 50.00	
Bonds and Insurance	29.80	
Journal Space	$ 301.00	
Depreciation Furniture and Fixtures	178.53	$ 559.33
Total Expenses		$10,674.93

JOURNAL FUND:

Cost of Printing and Distributing:		
Printing	$11,196.22	
Engraving	706.17	
Mailing and Delivering	461.60	
Commissions on Advertising	648.63	
Discounts on Advertising	282.33	$13,294.95
Administrative Expense:		
Auditing	$ 100.00	
Bonds and Insurance	59.60	
Stationery and Supplies	335.58	
Subscriptions to Periodicals	32.35	
Telephone and Telegraph	226.40	
Rent and Janitor Service	998.34	
Office Postage	174.20	
Express	.92	$ 1,927.39
Salaries:		
Editor	$ 4,173.33	
Stenographers and Bookkeeper	2,283.90	$ 6,457.23
Miscellaneous:		
Depreciation Furniture and Fixtures	$ 357.07	
Bad Accounts Charged Off	195.85	$ 552.92
Total Expenses		$22,232.49

MEDICAL DEFENSE FUND:

Attorney's Fees:		
General Attorney	$ 600.00	
State vs. Johnson's Case	510.30	
Mrs. Maud Traylor's Case	150.00	
T. R. Patterson's Case	100.00	
Moir Moore's Case	150.00	
Sadie Bergeron's Case	200.00	
Alvin Carter's Case	100.00	
Thomas Jordan's Case	233.40	
Mary Boriski's Case	500.00	
J. M. Crawford's Case	200.00	
Josephine W. Hudson's Case	200.00	
Marie Dodson's Case	200.00	$ 3,143.70
Administrative Expense:		
Rent	$ 120.00	
Secretary's Salary	240.00	
Stenographer and Bookkeeper	240.00	
Supplies	8.00	$ 608.00
Total Expenses		$ 3,751.70

PUBLIC HEALTH AND LEGISLATION FUND:

Advertising		$ 5,608.36
Traveling Expense:		
Jeff L. Reese	$ 1,514.79	
Dr. Holman Taylor	34.49	
Dr. D. R. Venable	3.24	
Dr. I. C. Chase	$ 131.24	
Dr. H. R. Dudgeon	34.00	
Dr. Thos. Dorbandt	46.94	
Dr. O. H. Judkins	12.20	
Dr. S. E. Thompson	110.65	
Dr. J. J. Terrill	55.22	
Dr. Chas. H. Harris	16.06	
Dr. C. M. Rosser	117.68	$ 2,076.51
Salaries:		
Dr. D. R. Venable	$ 2,700.00	
Jeff L. Reese	1,750.00	
Stenographers	473.00	$ 4,923.00
Attorney's Fee—Chas. L. Black		500.00
Other Expenses:		
Printing	$ 138.20	
Postage	77.28	
Telephone and Telegraph	158.36	
Hall Rentals, etc.	72.00	$ 445.84
Total Expenses		$13,553.71

STATE MEDICAL ASSOCIATION OF TEXAS
PROPOSED BUDGET
Fiscal Year 1925-1926

INCOME.

Income from Dues (3,000 Members):		
Medical Defense	$ 3,000.00	
Subscriptions to Journal	6,000.00	
Association Fund	36,000.00	
		$45,000.00

Other Income:		
Journal Advertising	$14,000.00	
Interest on Funds	3,500.00	
		$17,500.00
Total Income		$62,500.00

BUDGET APPROPRIATIONS.

Medical Defense:		
Attorney's Fees	$ 3,400.00	
Office Salaries	480.00	
Rent	120.00	$ 4,000.00
Journal:		
Cost of Printing and Distributing	$16,000.00	
Administrative Expense	2,000.00	
Editor's Salary	4,173.33	
Stenographers and Bookkeeper	2,339.67	
Miscellaneous	487.00	$25,000.00
Association:		
Annual Meeting	$ 1,500.00	
Office Expense	1,500.00	
Secretary's Salary	$ 2,086.67	
Salary, Dr. Venable	3,600.00	
Salary, Mr. Reese	2,400.00	
Stenographers and Bookkeeper	1,920.33	
Officers' Traveling Expense	993.00	$14,000.00
Publicity and Educational		$ 1,500.00
Law Enforcement		1,500.00
Legal and Legislative Expense		500.00
Collection and Preservation of Records		500.00
Library		500.00
Total Appropriations		$47,500.00
Refund to Surplus	$ 7,532.37	
Unappropriated—General Fund	7,467.63	15,000.00
		$62,500.00

Fort Worth, Texas, April 27th, 1925.

To the Board of Trustees,
State Medical Association of Texas,
Fort Worth, Texas.

Gentlemen:

In accordance with the instructions of your State Secretary, we have audited the accounts of the State Medical Association of Texas, for the period from April 23, 1924, to April 23, 1925. We submit herein a statement of the financial condition of the association as of April 23, 1925, and a summary of surplus for the period covered together with supporting schedules and comparative statements.

All receipts and disbursements were checked in detail and found to be properly supported. Cash on hand was verified against information secured from the depository banks. We found the accounting records to be efficiently and accurately kept.

We submit herein a proposed budget for the operation of the association for the ensuing fiscal year, based on past experience and information furnished by your Secretary as to the activities contemplated.

We hereby certify that the accompanying statement of condition and operating statements correctly reflect the condition of the State Medical Association of Texas as of April 23, 1925, and its operation for the fiscal year ending on that date.

Respectfully submitted,

SCALES & MOTHERSHEAD,
Certified Public Accountants.

Our actual surplus at this time is $38,701.42. The balance of the $81,141.17, which the Association is noted as being worth, is in unearned sums and may not be said to be our property until full twelve months have elapsed.

The analysis of our surplus, which includes all profits and losses, the Association being on a paying basis, show that our Association Fund lost $2,146.06; the JOURNAL made $56.00; the Medical Defense Fund made $979.11; the Unappropriated Fund made $1,091.05; the Public Health and Legislative Fund, being a special fund, created and then balanced, lost the amount spent, as a matter of course. Altogether, operations incurred a net loss of $14,518.99, which was mostly cared for by the $13,553.71 spent on the publicity and educational campaign. These figures include the interest earned on the several funds, amounting altogether to $3,306.23. It was understood, of course, that the deficit would occur here, because the increase in dues would not become effective until the close of the next year, at which time there will be a surplus and not a deficit. This is all a matter of bookkeeping.

The tentative budget prepared for the consideration of the House of Delegates has already been referred to. It should be considered in detail, as the Auditor's report otherwise is considered, and at the same time. As we have said, this budget appropriates for the active enterprises of the Association the anticipated income from all sources, including the membership, at $10.00 per member. The additional $5.00, it will be noted, goes to refund to the surplus money advanced for the publicity and educational campaign, and to the Unappropriated or General Fund, from which it may be appropriated as required.

We feel that we cannot close this report without extending to the Secretary-Editor, his efficient assistant and the office force, our full appreciation of their services during the year. They have served without stint and without complaint, beyond the demands made upon them, that the work they are engaged in might succeed and not fail in any particular. The Trustees take this opportunity to extend to them, in the name of the membership, the thanks of the medical profession of Texas.

Respectfully submitted,

JOHN T. MOORE, Chairman.

Referred to the Reference Committee on Finance.

The President: We will now have the Report of the Board of Councilors.

Dr. W. B. Thorning of Houston, then presented the report of the Board of Councilors, with suitable comment.

REPORT OF THE BOARD OF COUNCILORS.

We desire to present this preliminary report at this time and ask the privilege of rendering a further and supplemental report at a later date.

The Board of Councilors has had an unusually heavy year's work for the reason that in addition to routine duties we have been frequently called upon to render assistance to the Council on Legislation and Public Instruction.

The report of the Secretary will cover the list of county societies which have been issued new charters and the reasons therefor and need not be duplicated here.

One member appealed from a decision of his county society to this board but later withdrew his appeal making further consideration by us unnecessary.

On the whole, the ethical situation throughout the State is satisfactory. A few county societies have failed to conduct their affairs in a manner entirely commendatory, but, up to date, we have not felt compelled to intervene, believing that if allowed further time they would, unaided, make proper adjustment of their difficulties.

A resolution introduced in the house of delegates last year regarding Dr. R. E. House of Ferris, Texas, and his work with the so-called "Truth Serum" failed to reach us until after adjournment of the annual session. It will be recalled that Dr. House in his travels about the country has at times been exposed to some embarrassment by local county so-

cieties regarding his professional standing in his own State and his relationship with organized medicine. Being in sympathy with the effort Dr. House is making to place his discovery on a scientific basis and desiring to help him so far as possible, he was given the following statement:

"This is to certify that Dr. R. E. House of Ferris, Texas, is an ethical member in good standing, of the Texas State Medical Association and no charges against him of unethical practices have ever been preferred before this board."

It is our very great pleasure to announce to this house of delegates that the board of regents of the University of Texas and the board of trustees of Baylor University have made it possible for the post graduate courses to be continued again this year. We wish to again call your attention to the very splendid co-operation of the teaching faculties of these two universities. We acknowledge our debt to them and in the name of the people of Texas, as well as the profession, we tender sincere thanks. The course at Galveston will be from June 8th to June 20th, inclusive, and at Dallas from June 1st to June 14th. If space will permit, we shall hope to see the program printed in the May number of the STATE JOURNAL.

A large proportion of the extra work thrown upon this board during the past year has been in connection with an action of the house of delegates of the last Annual Session in raising the annual dues from five to fifteen dollars. The motion to raise the dues was carried by an overwhelming majority but it should be remembered that, numerically, the house of delegates is small, compared to the entire membership, and a great proportion of those who attended neither the deliberations of the house nor the annual meeting had to be convinced of the wisdom and necessity for such a course. Fortunately there has been no great difficulty in demonstrating to those with whom we could establish a direct contact, that there was an acute emergency facing the previous House of Delegates and that the House acted wisely in making its decision. There have been some exceptions to this general rule, as there are always a few who exemplify the old saying that "there are none so blind as those who will not see."

In this connection, may we not suggest to every delegate that in making his report to his county society he urge upon his fellow members the importance of carefully reading the STATE JOURNAL, particularly the number which contains the report of the Annual Session. Our work this year has convinced us that had this custom been followed there would have been much less misunderstanding.

We urge upon this House that they indulge in a most careful and deliberate perusal of the report of the Council on Legislation and Public Instruction. It relates in more or less detail the accomplishments of this Council during the past year, and in our opinion their effort constitutes the most comprehensive and the most constructive work ever attempted by the State Medical Association. The report frankly states that the work was inaugurated under the stress and strain of urgent need for haste and it is quite possible that a better method of procedure may be developed in the future. We refer to the future because we believe this work should be continued. The value to the people of Texas of last year's educational campaign reaches tremendous figures and to deny it is to admit an utter ignorance of the facts in the case. The plan or method for future work and the manner of financing it we leave to you, but believing as we do that medical education of the public is the one certain method of overcoming the evils of quackery, cultism, and medical frauds, we again urge upon you careful consideration of the ways and means for continuing it.

W. BURTON THORNING, M. D.,
Chairman.

Referred to the Reference Committee on Reports of Officers and Committees.

The Secretary then presented the report of the Council on Legislation and Public Instruction, as follows:

REPORT OF COUNCIL ON LEGISLATION AND PUBLIC INSTRUCTION.

The Council began its work for the year instructed, briefly, as follows: (1) to launch a campaign of publicity and education at once, as outlined in the report of the Council for 1924; (2) to resist all efforts to weaken the present Medical Practice Act, or establish separate standards by law for the different schools of medicine, or cults; (3) to coöperate with the State Board of Health and other organizations interested in the public health, in attempting a revision and improvement of the health laws of the State, and (4) in a similar manner to coöperate in seeking better provisions by law for the care and treatment of the insane wards of the State.

THE PUBLICITY AND EDUCATIONAL CAMPAIGN.

The most important duty before the Council was that of launching the publicity and educational campaign that had been for several years under discussion and which had been unanimously ordered by the House of Delegates the year before. Preliminary plans had been carefully prepared but the details had not been fully agreed upon. President Bledsoe assembled the Council, the trustees and the councilors as soon as possible following adjournment of the Annual Session, at which time the loose ends were gathered together and a division of the work immediately in hand made. Dr. I. C. Chase was continued in charge of the educational and publicity activities of the campaign, and President Bledsoe assumed active charge of the legislative work involved. A volunteer fund of approximately $9,000 had been raised, which was several thousand dollars below the estimated cost of the character of campaign the Council expected to promote. The trustees readily agreed to set aside the approximately $7,000 required. Election day was not far off, and the importance of informing the public on the subject of medical legislation was not overlooked.

The Council had during the session of the preceding Legislature, when the Medical Practice Act was so seriously under fire, solemnly promised those of our friends who so valiantly stood by us that we would see to it that our publicity campaign was conducted in time to substantiate them in the stand they took and to enable them to continue to labor in this good cause. A reliable advertising agency was employed to plan the newspaper publicity end of the campaign, including the framing of the sort of display advertising required and feasible in the light of medical ethics. Copy for these ads was first prepared by the Council and then submitted to the advertising agency for revision. The revised ads were again rewritten by the Council and the process repeated until all were satisfied that the best compromise possible between the extreme views of the publicity expert and the medical profession had been obtained. Arrangements were then made to cover the field exploited by our speakers, first with full page announcements of our purpose in each of the local papers in each instance, to be followed with quarter-page, catchy display ads, each

carrying a message. The Council feels that it would be a difficult matter to frame more dignified and at the same time more convincing display advertisements than these were. They will be found in *facsimile*, in the October, 1924, number of the JOURNAL. It is not deemed practicable to include them in this report.

In the meantime, a speaker's bureau was organized and an itinerary prepared, covering as nearly as could be done in the brief time at the disposal of the Council, the principal centers of the State. The personnel of the speaker's bureau was formed from nominations made by members of the Council and members of the Board of Councilors, and it was agreed that speakers be assigned to localities beyond their sphere of professional influence as far as possible. The speaking places were selected because of their accessibility and distribution, and no speakers were to be sent to a community except upon the consent and agreement of the county society holding jurisdiction. The Council realizes that there could be improvement in both the personnel of the speaker's bureau and in the distribution of speakers, but time did not permit of any delay for purposes of deliberation. A standard outline of a public health address was prepared by the Council, and illustrative items furnished. Speakers were advised as to the most feasible method of preparing an address as outlined, and the outline was prepared so as to allow almost unlimited latitude, the only fixed requirement being a discussion of the underlying principles of the practice of medicine, the fairness of the present Medical Practice Act and the necessity of its enforcement from the standpoint of the public. The fixed and understood purpose of the address was to demonstrate to the lay public the value of scientific medicine over the pseudo-scientific variety thereof, from the standpoint of the lay public. The Council was and is still of the opinion that when this objective has been reached, the people will see to it that their interests are protected by the State through some such medium as the present Medical Practice Act, that legislators are elected who will appreciate the need of such protection, and that the law-enforcement machinery is set in operation against this particular class of law breakers.

The Council has not been able to secure complete reports from speakers, but according to the record, the following speakers made one or more addresses during the campaign: Doctors Joe Becton, M. F. Bledsoe, R. E. Bowen, J. H. Burleson, W. H. Cade, E. H. Cary, Will Cantrell, Geo. L. Carlisle, I. C. Chase, S. P. Cunningham, Thos. Dorbandt, H. R. Dudgeon, A. I. Folsom, Joe Gilbert, C. W. Goddard, M. L. Graves, C. R. Hannah, C. H. Harris, C. A. Hays, Preston Hunt, Dudley Jackson, W. D. Jones, O. H. Judkins, L. L. Lee, I. L. McGlasson, J. A. McIntosh, J. O. McReynolds, F. P. Miller, F. U. Painter, C. M. Rosser, A. C. Scott, A. B. Small, Holman Taylor, J. J. Terrill, S. E. Thompson and W. B. Thorning.

One or more speeches were made in the following communities: Abilene, Amarillo, Arlington, Athens, Atlanta, Austin, Ballinger, Bastrop, Beaumont, Beeville, Big Spring, Boerne, Bonham, Brownsville, Brownwood, Canton, Childress, Cisco, Clarendon, Clarksville, Coleman, Colorado, Commerce, Corpus Christi, Corsicana, Cuero, Dallas, Del Rio, Denison, Denton, DeKalb, Eastland, El Paso, Fort Worth, Galveston, Gainesville, Georgetown, Greenville, Hallsville, Handley, Hillsboro, Jacksonville, Kenedy, Kerrville, Kilgore, Kingsville, Llano, Lockhart, Longview, Lufkin, Lubbock, Marlin, Marshall, Memphis, Mt. Pleasant, Nacogdoches, Omaha, Orange, Palestine, Paris, Pearsall, Pecos, Port Arthur, Quanah, Ranger, Roundrock, Rusk, Sabinal, San Angelo, San Antonio, Santa Anna, San Marcos, Sherman, Sweetwater, Taylor, Temple, Texarkana, Tyler, Uvalde, Victoria, Waco, Waxahachie, Wichita Falls, Winters, Wills Point and Yoakum.

According to reports probably still more incomplete, 35,000 people were spoken to directly during the campaign, and, of course, many times more than that number reached by the newspaper advertisements.

It was recognized in the beginning that a campaign so intensive as this one could not be continued indefinitely. Speakers were, for that reason, directed to organize county societies wherever they spoke to continue the campaign into neighboring communities. It was planned to furnish speakers selected by county societies with the standard outline for speeches above referred to, and such newspaper publicity as might be necessary. It was planned that there should be no end to this phase of the campaign, so long as funds were available to cover the State Association's share therein.

The Council would appear unappreciative if it did not give credit here to the coöperation, particularly, of the Board of Councilors, and incidentally to the rank and file of the profession wherever opportunity offered for coöperation.

As to the cost of the campaign, it is difficult to get at the exact figures because of the fact that much of the activities of the campaign were very intimately connected with the routine activities of the Association. Speaking generally, the following figures may be of interest: The sum of $9,012.06 was raised by volunteer subscription, to which must be added $150.00 in interest on this amount. The trustees appropriated from the general fund a sufficient amount to make a total of more than $16,000, the amount spent during the whole of the campaign, and which included the salaries of the assistant to the Secretary-Editor, and the advertising manager of the JOURNAL, who looked after legislative matters very largely. The newspaper advertising campaign cost $5,608.36, to be exact. The overhead, excluding that portion of the general office expenses made necessary by the increase in activities, amounted to approximately $9,500.00. The traveling expenses of speakers amounted to but little more than $600. There were some other expenditures, including lawyers' fees, which, while assumed by the Council as a part of its expenses in this campaign, really were for legislative purposes.

The editorial pages of the JOURNAL, from July to November, contain extensive references to this campaign, and the Council feels that it is not desirable to go more fully into detail. Reference is made particularly to the September, October and November numbers. Whether the Council has carried out its instructions satisfactorily remains to be concluded from the results. It is to be regretted that circumstances are such that full and detailed publicity may not be given to the plans of the Council. A good general does not disclose his plans to the enemy, and there seems no feasible way of disclosing them to friends and at the same time keeping them from the enemy. There is really nothing to hide, but even the Golden Rule and the Ten Commandments, are subject to misinterpretation and criticism.

CHIROPRACTIC LEGISLATION.

It was quite apparent when the Legislature had assembled, that our legislative campaign had been most effective. As has been stated, President Bledsoe assumed the responsibility of directing the actual legislative work of the Council, which he did

most effectively and without calling upon the large groups we have heretofore found it necessary to assemble in Austin from time to time when medical legislation was in progress. Physicians were summoned individually and as required. Some responded and some did not. Proceeding in this manner, the Council had no difficulty in placing its views before the average legislator on any public health or medical subject. There have always been those who believed in the medical profession and who stood ready to listen to the advice of any good doctor, but there have also been many who looked upon all legislation pertaining to the practice of medicine, at any rate, as an affair between doctors and not to be considered by the great lay public, except in support of its friends on either side of a bothersome contention. This group had undoubtedly dwindled to a negligible number, so far as the Legislature was concerned. It may easily be that the endeavors of the medical profession, through the Council, to acquaint the public with the facts relating to the practice of medicine, and the difference between scientific medicine and the pseudo-scientific variety thereof, were not completely successful, but the information was cried from the housetops and those who were interested heard and understood. The legislator who sought his position for the purpose of contributing his mite to the public weal and welfare heard, and the legislator who wanted to go to Austin for selfish purposes, and who might be classed as an opportunist, likewise heard, as undoubtedly did the legislator who had as one of his purposes in seeking the often onerous task of making laws, the support of friends who were contenders against the medical profession. No effort was made to pledge legislators to do any particular thing, but all candidates for the Legislature were acquainted with the position of the medical profession on three important legislative problems, as follows:

"1. Revision of the public health laws, to the end that the Health Department may operate efficiently and economically. It is felt at this time that the most sensible way to bring about this condition of affairs is to provide for a Board of Health with interlocking terms of office and sufficient power to control health conditions, the State Health Officer to be an employee of the Board.

"2. Adequate provision for the care and treatment of our insane. It is believed that if a law may be devised which will provide for a psychopathic hospital, for the observation, diagnosis and treatment of those believed to be insane, to which commitment may be both on a volunteer and compulsory basis, many otherwise hopelessly insane may be returned to useful and safe citizenship, the residue going to the so-called insane asylums for incarceration and humane care.

"3. Maintenance of the present system of a single standard of educational requirements for all who would practice medicine, no matter after what so-called school or system of practice, is considered a public health problem of supreme importance. An effort will doubtless be made to secure separate boards for those who disagree with the facts of science as pertain to the practice of medicine. Such a system is held by us to be not only dangerous to the public health but unconstitutional as well. It is an imposition on the medical profession to require constant contention against serious efforts of this sort. The medical profession cannot evade the issue and stand from under the responsibility of protecting the public against unwisdom of this sort."

So well had the predicate been laid against legislation in the interest of the cults, that it appeared for a time as if the much heralded Chiropractic Bill would not be introduced after all. Indeed, it was believed that the proponents of this measure experienced some difficulty in securing the consent of legislators to daddy the bill. It was never introduced in the House. On January 29, the bill agreed upon (S. B. 185) was introduced in the Senate by Senator Archie Parr of Duval County, who, it will be remembered, favored this character of legislation two years ago. The bill was promptly handled by the Senate Committee on Public Health, consisting of Senators (Dr.) Berkeley, Bailey, Fairchilds, Floyd, Parnell, Parr, Stuart, Ward and Wirtz. A public hearing was conducted, which was attended by a large group of chiropractors, and by Drs. Bledsoe, Thorning, Beverly and Taylor of our Council, and T. J. Crowe of the State Board of Medical Examiners. Ex-Senator Quintus Watson, represented the chiropractic organization as attorney, and Messrs. C. C. McDonald and B. Y. Cummings of Wichita Falls, represented the State Medical Association and the State Board of Medical Examiners, in a similar capacity. The hearing was most interesting, indeed, and was dealt with at length in the March, 1925, JOURNAL, to which reference is here made for further details. The provisions of this bill will be referred to elsewhere in this report. Suffice it to say here that it was quite the most ambitious measure of this sort the Council has ever seen.

Some little misapprehension was created by the announcement that the Senate committee reported the bill out favorably, with an unfavorable minority report. The truth of the business is, there was just one member of the committee who was in favor of the bill, with another member apparently undecided. The rest of those present were against it. It is not for us to elucidate the wiles of politics, but the matter has been explained to us somewhat as follows: Senator Berkeley, chairman of the committee, was not supposed to vote except in the case of a tie vote. Senator Parnell voted against the bill. Senator Parr, the author of the bill, voted for it. Senator Floyd did not vote. Senator Wirtz voted for the bill, with the understanding that he was at liberty to vote against it and even fight it, when it came up for consideration in the Senate—which he, as a matter of fact, subsequently did. That gave the bill a majority vote—two for and one against, with two not voting. Senator Berkeley later joined Senator Parnell in a minority vote against the bill. The balance of the committee were absent when the vote was taken. There were several important, conflicting hearings, unfortunately for us, which it is presumed accounted for the absenteeism. Having been reported favorably (two for and two against, with one not voting) many proponents of the chiropractic bill professed to believe that it would pass. There was never a chance for anything of the sort, and, in our opinion, the principal advocates of this bill knew it. There was apparently no great effort to bring the bill to a second reading. When it was laid before the Senate, Senator Parr, its author, moved that it be laid on the table, subject to call. The object of this maneuver was clear, of course. Being subject to call, the friends of the measure could pick the time when the ranks of its opponents were for any reason reduced. Senator Holbrook, therefore, moved as a substitute, that the consideration of the bill be indefinitely postponed, which substitute motion was carried by a *viva voce* vote.

Ordinarily, this would be the end of the legislation, but the rules of the Senate permit a reconsideration at any time. The great majority of the Senate was so clearly against the bill that it was thought that no further efforts would be made in its behalf.

However, near the noon hour, on February 16, Senator Parr moved to reconsider the vote by which the Senate indefinitely postponed consideration of the bill. Senator Wood immediately moved to table the motion to reconsider, and his motion to table was adopted by the following vote:

To table (to kill the bill), Senators Berkley, Bledsoe, Holbrook, Moore of Cooke, Moore of Hunt, Pollard, Price, Reid, Smith, Stuart, Triplett, Ward, Wirtz and Wood.

Against the motion to table (to permit of a vote on Senator Holbrook's original motion to indefinitely postpone), Senators Bailey, Bowers, Davis, Fairchild, Floyd, Murphy, Parr, Real, Strong and Woodward.

Absent, Senators Hardin of Erath, Hardin of Kaufman, Lewis, Miller, Parnell, Russek and Witt.

To make a long story short, the bill was thus killed, by a vote of 14 to 10, with 7 absent. Among those who voted for a reconsideration are some who were emphatically against the bill, and others who, while they had heretofore favored such legislation, had given assurance that they were now opposed to it. This, therefore, can hardly be considered a hard and fast test vote.

The Council feels that with the assistance of the few councilors called upon, it has successfully carried out its second important mission, namely, to resist every effort to make exceptions to the present Medical Practice Act and establish a lower standard for the practice of medicine or any part of it.

REVISION OF PUBLIC HEALTH LAWS.

The Council early began an intensive study of the present laws relating to the public health, in order that correction of the most glaring and immediately hurtful deficiencies, as it saw it, might be made with a minimum of effort, feeling that the big fight would pertain to the Medical Practice Act, and not desiring any more deviation from the main objective than was essential. In this endeavor the Council coöperated closely with the State Board of Health and the State Health Officer. It was soon discovered that an ideal measure would be almost impossible, for constitutional reasons. Indeed, it was not possible for your Council to determine just what would be constitutional and what would not, among the many suggestions made by interested parties. A bill was prepared, carrying all of the provisions believed necessary and which the Council felt had some chance of passing, and of being held constitutional, and submitted to an accomplished constitutional lawyer for criticism. He eliminated approximately one-half of the bill, and rewrote the remainder in proper form. This measure was submitted to the new State Health Officer and the present administration for criticism. The Council had determined that it would actively seek no legislation pertaining to State government except in conjunction with appropriate departments thereof. In its fight against modification of the Medical Practice Act, it had worked with the State Board of Medical Examiners, but the new board had not been appointed and the old board continued to function. The new Board of Health had not been appointed, either, and because of certain differences of opinion that arose in regard to some of the provisions of the measure that had been prepared for introduction, and the rush of the Legislature to finish its labors within sixty days, it was thought best to withhold action until the opinion of the proponents of the bill had been better crystallized on the points mentioned, and a more favorable opportunity presented. The bill is ready and can be whipped into agreeable shape quickly. It will doubtless pass without a great deal of difficulty when introduced. The Council feels that it has carried out its instructions in this respect to the extent possible and practicable.

CARE AND TREATMENT OF THE INSANE.

Our fourth mission, to continue in coöperation with other organizations in the matter of revising and improving the laws of this State pertaining to the care and treatment of the insane, was modified somewhat by the action of the last General Meeting of the Annual Session, in appointing a special committee to look into these and related matters. A committee of seven was appointed to study the problem of the insane and attempt to secure more adequate room and better treatment, involving as a prominent feature the establishment of psychopathic hospitals and a commission composed of qualified physicians to have control of all institutions caring for the insane in Texas. The following committee was appointed: Dr. W. L. Allison, Fort Worth, chairman; Drs. O. L. Norsworthy, Houston; J. J. Terrill, Dallas; T. L. Moody, San Antonio; John W. Burns, Cuero; J. N. White, Texarkana, and A. L. Lincecum, Dallas. This committee will report separately, and it remains only for us to refer in general terms to its accomplishments. It was recognized that it was best to allow this committee the greatest latitude, becoming active in the premises only when such activity was desired by the committee.

The bill carrying reforms agreed to by the committee above referred to, and by this Council, is mentioned more or less in detail elsewhere in this report. Suffice it to say here, that for the first time in the history of the State, nearly adequate provisions are made for the care and treatment of our most unfortunate class of dependents, and for the prevention of one of the most disturbing factors in our modern civilization. Nor was this feat accomplished without much endeavor. Notwithstanding there were few, if any, who doubted the value of the legislation, even the necessity of it, there were those who disagreed with the provisions of the measure prepared to carry out the reforms involved, for a variety of reasons. The bill became a law following its amendment by a free conference committee, which so modified the measure as to do away with objections the Governor had to offer, and it was, accordingly, signed by the Governor. This law will be published in the JOURNAL, in full, and perhaps referred to editorially more at length than this report may go. The Council feels that it has accomplished the fourth objective set for it by the House of Delegates, in conjunction with the very able committee herein referred to.

PUBLIC HEALTH MEASURES.

Chiropractic.—The Chiropractic bill (S. B. 185) was introduced by Senator Archie Parr, January 29. This was evidently the bill agreed upon by the several contending factions in chiropractic ranks, and referred to by such extensive newspaper publicity preceding its introduction. No companion measure was introduced in the House, although news dispatches were to the effect that Representative H. S. McNatt of Tarrant county, had prepared a bill to license chiropractors and would introduce the same at an early date.

This bill sought to create a board consisting of "five practicing chiropractors of integrity and ability to practice chiropractic as the practice of chiropractic is defined in this act, each of whom shall have a diploma from a reputable chiropractic school or college," etc.—which does not mean anything. Indicating somewhat the contention that had existed among chiropractors as to the standard that should

be set up was the provision that "no more than two members of said board shall be graduates of the same school or college of chiropractic." A high school education was required and a resident course of instruction in a chiropractic school of not less than three terms of six months each, and not less than three thousand class hours of actual attendance therein, was required. Those engaged in the practice of chiropractic at the time the law became effective, were within sixty days to declare their intention of continuing to practice chiropractic in the State (omitting mention of the fact, naturally, that this practice has been mainly in violation of existing laws), and of their intention to take the examination provided by the law. This declaration would secure the right to continue to practice until examination could be had, it is presumed.

Examination would be on the following subjects: "Anatomy," "Physiology," "Symptomatology," "Hygiene," "Chiropractic Principles," "Technic," "Vertebral Palpation," "Neurology," "Chiropractic Analysis," "Chiropractic Diagnosis, and Chiropractic Adjusting as Taught by Chiropractic Schools and Colleges," and "Public Health Service." The addition of the last named is a keen piece of political maneuvering. Those who failed to apply for the examination, as required, were supposed to waive their rights. An average grade of not less than 75 was required, but there appeared to be no statement as to what basis the calculations would be made upon. There was an annual registration fee of $5.00. The board might refuse to license any one who presented a certificate or diploma illegally or fradulently obtained, or for fraud or deception practiced at the time of examination; for conviction of a crime of the grade of felony, or one involving moral turpitude, or for "other grossly unprofessional or dishonorable conduct, and for habits of intemperance or drug addiction." The grossly unprofessional conduct is good. This Act would not apply to physicians or surgeons licensed to practice medicine under the laws of the State of Texas, provided they do not "publicly or privately represent themselves to be a chiropractor, nor offer to adjust or rearrange the spinal column of the human being or its articulations, as a chiropractor." Those licensed under this bill could practice chiropractic as defined by the law. It is presumed they could practice no other kind of chiropractic.

The definition of chiropractic was the simplest we have seen, "The science of chiropractic is here defined to be the science of palpating and adjusting the several vertebrae and articulations of the human spinal column by hand." The practice of chiropractic was specifically declared not to be the practice of medicine, surgery or osteopathy. Any person would be practicing chiropractic within the meaning of the Act "(a) Who shall either publicly or privately represent himself to be a chiropractor and shall adjust or rearrange, attempt to adjust or rearrange, or offer to adjust or rearrange, by use of his hands, any of the several vertebrae of the spinal column, or any of the articulations of the spinal column of a human being, (b) who shall adjust or rearrange, attempt to adjust or rearrange, or offer to adjust or rearrange by the use of his hands, any of the several vertebrae of the spinal column of a human being, and shall charge therefor, either directly or indirectly, money or other compensation." The penalty for violating the law was not less than $50 or more than $500, and imprisonment in the county jail for a term of not exceeding six months. There were the usual provisions for fees—which important subject was, no doubt, satisfactorily handled—and the usual safeguards for such acts.

This bill was defeated in the Senate. It never had the least chance of becoming a law.

Optometry.—Perfecting amendments to the Optometry law were incorporated in a bill introduced by Representatives Kittrell, Pool, Hall and Pearl, January 30 (H. B. 295). As originally introduced, this measure was entirely too complicated, and was due to be defeated for that reason. The whole intent and purpose of the optometrists in this instance was to make the optometry law comprehensive and effective. And as in the case of our Medical Practice Act, it had been found that the optometry law offered several loop holes for escape for those who would violate its provisions, and failed in important particulars to cover the optometry field. Our Council was content to see this law perfected, and therefore rendered to the optometrists such assistance as was reasonable under the circumstances, carefully guarding our own interests in the meanwhile. It was clear that there was no intention on the part of the optometrists to do either. It is not necessary to set out in detail, we feel sure, the provisions of this bill as it finally became a law, or to discuss them further. It is believed that the general effect will be beneficial.

Cosmetic Therapy.—The beauty parlor people of the State, following several conferences, in which we are told there was much difference of opinion, finally agreed upon a bill regulating the operation of beauty parlors and the practice of what was termed therein "cosmetic therapy," and establishing a board of examiners to pass upon the qualifications of all who would practice the same, and secured its introduction by Representatives A. R. Shearer of Galveston, and Jim Cade and T. P. Hull of Bexar. We interested ourselves very little in this measure, but advised that if the practice of "cosmetic therapy" required regulation, and the proponents of this measure insisted that it did, that the bill utterly failed to protect the public interests, whatever it did for the practitioners of the art. It appeared that the bill had been ruinously liberal in an effort to satisfy all factions concerned in its preparation. Another measure was due to be introduced later on in the session, but was withheld when it appeared that this class of legislation was not very popular. This latter measure would have at least tended to require the education of persons who would practice the art of "cosmetic therapy" to the extent that they would know some of the dangers to be guarded against in the matter of direct injury, and in preventive medicine. The chances are that the cosmetic therapy people would have themselves sought to prevent the passage of this bill had it been introduced. It is the opinion of the Council that beauty parlors may be controlled by the State Board of Health if the Legislature desires to do anything of the sort. If so, there is ample authority in law now, but no money with which to operate. The measures above referred to would have produced the funds in ample quantities, both for this purpose and for the good of those who love to serve on boards of examiners.

Care and Treatment of the Insane.—This measure (H. B. 249), by Representatives J. F. Wallace of Freestone, and T. K. Irwin of Dallas, carried the recommendations of the Eleemosynary Commission appointed by the 38th Legislature, and was approved by our special Committee on Care and Treatment of the Insane, which committee will make a special report to the House of Delegates. The bill has already been referred to in this report, and it is sufficient to say here that it became a law, after so long a time and in spite of some of its friends. In its original form, it was, indeed, a rather ideal

measure, although never what students of this problem had aspired to. Even in its amended form it is a long step in the right direction. Briefly, and without attempting to analyze the bill, it provides as follows: Changes the designation of the various insane hospitals and asylums to "State Hospitals;" authorizes the State Board of Control to divide the State into hospital districts, with a hospital designated for each district; provides two psychopathic hospitals, one at Galveston, in connection with the Medical Department of the University of Texas, and the other in Dallas, but not connected with Baylor Medical College; provides for full or part payment of expenses of patients by their people; provides for mental hygiene clinics; provides for commitment to an institution for the custody and treatment of persons believed to be insane, by a county judge upon certificate of two reputable physicians, or by trial by jury if demanded, and for volunteer commitment under suitable safeguards, of persons who believe themselves to be mentally unsound; prohibits the use of inhumane means of restraint, except under certain conditions and when absolutely necessary; provides a salary of $4,000 for the superintendents of the psychopathic hospitals, and requires the said superintendents to be qualified physicians, thoroughly trained in psychiatry and experienced in hospital management, who shall give their whole time to the service of the State in this capacity. The Act was signed by the Governor and is a law.

Senators Joe Moore of Hunt, and R. A. Stuart of Tarrant, when it appeared that the above mentioned bill would fail, introduced a bill (S. B. 469), making an appropriation of $150,000 for the construction and equipment of a psychopathic hospital at Dallas, which measure was reported unfavorably by the finance committee of the Senate, with a favorable minority report. It died on the calendar.

Senator John Davis of Dallas, introduced a bill in the Senate (S. B. 52), providing for the apprehension and commitment of insane persons, prohibiting their incarceration in jails and requiring city and county hospitals to care for such persons when apprehended. This bill received the favorable report of the Health Committee of the Senate, but died on the calendar.

Two or three other bills relating to commitment of insane were introduced, but soon lost sight of.

Marriage.—Representative W. P. Lane of Harrison county, introduced a bill (H. B. 13), prohibiting the marriage of persons suffering from venereal diseases and requiring the male applicant for marriage license to submit a certificate from a reputable practicing physician showing that he is free from such diseases. This bill would require any reputable physician to make the examination called for, and would limit the fee to be charged therefor to the munificent sum of $2.00. A fine of not to exceed $1,000, or imprisonment not to exceed one year, or both, was the penalty for failure on the part of the physician or prospective bridegroom, or anybody else concerned, to carry out the provisions of this law. Your Council did not believe this to be a practicable and wise piece of legislation, and made no effort to secure its passage; neither did it make any effort to kill the bill, feeling sure that none was needed. It is hardly likely that any physician would agree to assume the responsibilities of passing upon such a serious question as this at any price, and certainly no reputable physician could afford to make the examinations necessary to enable him to certify to freedom from gonorrhea or syphilis, for the sum provided, leaving out of the question the right of the Legislature to thus draft physicians into the service of the State. The Health Committee of the House reported this measure favorably, but with the committee substitute modifying its provisions considerably. The substitute bill was killed by the House, by striking out the enacting clause.

Alcoholic Legislation.—In an attempt to carry out the democratic platform demands, several bills having for their purpose the further restriction of the prescribing of intoxicating liquors, were introduced. Your Council felt that the alcohol question was so involved in prejudice and so surrounded by rabid contentions that it had better steer clear of the whole matter, particularly in view of the fact that participation, on either side, would seriously interfere with our main objective, the safeguarding of the Medical Practice Act. The provisions of these bills, as originally introduced, were so ridiculous and so apparently out of line with good statesmanship, that it was not thought possible that any of them would be passed as written. The Council felt that the medical profession stood for rigid enforcement of the prohibition laws, and would be willing to submit to considerable inconvenience in order to help, but it was likewise clear that the inhibitions would apply effectively only to the honest physician, the bootlegging physician being inhibited but slightly thereby. The American Medical Association has repeatedly adopted resolutions against this class of legislation, notwithstanding the legislative body of that great organization is strongly in favor of prohibition as a governmental policy. Objection is raised not to the purpose of such measures but to the danger of interference such as this by law-making bodies. If a legislature shall assume to say what a physician shall or shall not prescribe, or how much, or may require the divulging of privileged communications between physician and patient in the matter of prescribing alcoholic liquors, they may do so in other particulars. Further, the position is maintained that it is not necessary that a medicine be indispensable before it may be prescribed. Indeed, it is recognized that many of the most useful drugs in the armamentarium of the physician might easily be dispensed with, so far as the actual prolongation of life and the safeguarding of health is concerned.

S. B. 106, by Senators L. E. Price of Morris County, and W. C. Woodward of Coleman County, required that before a physician might prescribe alcoholic liquors, the patient must make an application therefor, giving the most intimate data in regard to himself and the disease that he thinks he is suffering from, and making an affidavit that he has not had any alcoholic liquors for ten days immediately preceding his application therefor. The physician must make an examination and certify that he believes the person to be suffering as stated, and in effect that he is willing to become a party to any crime he has committed, and that he should have the liquor he thinks he needs. After that, there must be enough red tape, affidavits and reports, to discourage the most determined physician in his effort to alleviate human suffering, the which it is not necessary to describe in detail. If the physician should make a false statement in the procedure, he would be guilty of a felony and might be confined in the State penitentiary for a period of not less than one or more than five years. This bill was eventually amended so as to eliminate most of its unreasonable provisions, so far as red tape and interference with proper functions are concerned. The physician must still, however, keep a record and send a quarterly report to the Comptroller at Austin, and file with the district clerk of his county a short report, giving full data, including the name and address of each person for whom he has prescribed intoxicating liquor, the said report being open to

inspection of the public. The district clerk would cause to be published in some newspaper a monthly report showing the names of the physicians prescribing intoxicating liquors, giving the total number of prescriptions of this sort written and the names of the persons for whom they were written, and so forth and so on.

A physician was allowed to have in his office, procured by the usual amount of red tape, not to exceed one pint of intoxicating liquor for use in emergencies. He was not permitted to secure more than this amount per month, regardless of the number of emergencies that might come under his observation and requiring treatment with this drug. It might be of interest to know by what process of reasoning the authors of this provision concluded that intoxicating liquors might serve an important part in meeting emergencies, and that the amount required by any physician would not be more than one pint per month. The provision was added that he should not charge more than a dollar for prescribing intoxicating liquor. It might be of interest to know whether this is taking from the physician any of his property rights without due process of law. The present limit of 100 prescriptions per quarter was reduced to 60. The provision was added that liquor permits might be revoked at the suit of the State in courts of competent jurisdiction, which was quite in contrast with the original law, which provided for summary revocation without any particular process. A substitute bill was passed by the Senate and favorably reported by the House Committee on Criminal Jurisprudence, with amendments, but it died on the calendar, because of the inability of its proponents to secure a two-thirds majority vote, which was necessary to bring it up for debate.

Representative J. F. Wallace of Freestone, introduced a liquor bill in the House (H. B. 207), which was displaced by the Senate bill above referred to.

Senator R. A. Stuart of Tarrant, introduced a bill (S. B. 235), prohibiting the prescribing of such alcoholic liquors as Jamaica Ginger, Lyko, Force, Monticello Tonic, by whatever name, which passed the Senate with amendments but died on the calendar in the House. It is easier to inhibit the medical profession in the distribution of alcoholic liquors than it is the manufacturer of patent medicines.

Amending the Workmen's Compensation Law.—Senators Joe M. Moore of Cooke, and L. E. Price of Morris, introduced a bill in the Senate (S. B. 246), which would so amend the Workmen's Compensation Act as to allow an employer to assume his own liability and make bond therefor, instead of buying protection for his employees from some indemnity company.

Senator B. F. Berkley of Brewster, introduced a bill (S. B. 306), amending the Workmen's Compensation Law so as to require medical aid and services for the injured after the present provided period of four weeks, figuring from the time of the accident, if necessary, regardless of whether the said injury was sufficient to require hospitalization. The same measure was introduced in the House (H. B. 468) by Representative J. G. McGill of El Paso. Both measures died on the calendar.

County Nurses—Senator Chas. Murphy of Harris, introduced a bill (S. B. 207), authorizing commissioners' courts to employ public health nurses, for the usual purposes, and the bill passed both Houses but was vetoed by Governor Ferguson. We cannot help but feel that there was some misapprehension in this case, and we may have failed in our full duty by not taking the matter up with the Governor and making sure that she understood the purposes of this bill. We are moved to this observation by a statement carried by the press crediting Senator Joe Bailey with congratulating the Governor on her veto of this law, stating that "they might have included doctors and lawyers in the bill." As a matter of fact, there is already a law for employing doctors for this same purpose, which the Senator evidently did not know. And why not employ doctors, if it is to keep people from being ill? The only people we know of who might object would be the doctors themselves!

Sale of Infected Bedding was forbidden in a bill introduced by Senator Chas R. Floyd of Lamar County (S. B. 267). This bill comes up every year, and it is not known who is particularly interested in it. The measure is complete and would at least tend to insure clean bedding, which would not be a bad thing. The bill died on the calendar.

A similar measure was introduced in the House by Representatives C. A. Barker of Grayson, and Sam E. Bateman of Collin (H. B. 103), except that the effort is to prevent fraud in selling old mattresses as new rather than in preventing the spread of contagious or infectious diseases. The bill was passed by the House, killed in the Senate Committee, recommitted, favorably reported, and then finally killed on the floor of the Senate by a vote of thirteen to eleven. It is not known who was behind this measure.

Sanitary Manufacture and Sale of Food.—Sanitary manufacture and distribution of food to the public was dealt with in a bill by Representatives J. F. Wallace of Freestone, J. H. Florence of Harris, and N. G. Kittrell of Harris (H. B. 273). This bill would require all places in which food is manufactured, cooked, prepared, stored or handled, to be maintained in a clean and sanitary condition; the screening of all openings during the fly season; the elimination of toilets, commodes and urinals; the elimination of sleeping quarters, and that no persons suffering from infectious or contagious diseases be employed in such food-manufacturing plants. It would also prohibit drug stores from serving food in the same room in which prescriptions are filled or medicines exposed for sale. This bill was killed in the House by striking out the enacting clause.

Self-Rising Flour—(H. B. 175), by Representative W. W. Harmon of McLennan, sought to amend the bill on this subject passed by the Thirty-eighth Legislature, by adding an article which would require that packages containing self-rising flour carry in plain language the percentage by weight of each chemical leavening ingredient contained. This bill died on the calendar.

Ice Cream.—(H. B. 297), by J. A. Rawlins of Dallas, would prohibit the sale of ice cream products, except under their true name, and prescribed a standard for the manufacture of ice cream products. An inspection system was authorized, under the State Health Officer. It is understood that the ice cream manufacturers of the State were interested in this measure, and there would seem to be no reason why such a law should not be enacted, except, perhaps, it would be better to merely require that the ingredients be harmless and the whole problem be put up to the State Board of Health. This bill died on the calendar.

Pollution of Water Courses.—Representative J. W. Kinnear of Jefferson, introduced a bill amending the law relating to the pollution of water courses (H. B. 70), making it unlawful to pollute such water courses by throwing therein crude petroleum, oil or like substances. Streams from which water is taken for the use of live stock and domestic drinking purposes were included. It was specifically provided

that the amendment would not apply to manufacturing plants whose affluents contained no organic matter that would putrefy, or any poisonous compounds or bacteria dangerous to public health or destructive to life of fish in the streams. This bill died on the calendar.

Municipal Water Supply.—Representative A. C. Dunn of Falls, introduced a bill which would serve to regulate the operation of municipal water plants (H. B. 71), by providing for certificates for water works operators, issued by a board of three, appointed by the State Board of Health. The board would be composed of an engineer of the State Board of Health, in charge of water workers, etc., another a professor in a state institution having to do with such problems, and the other an experienced water works plant operator. This board would establish a standard of efficiency and qualifications for those engaged in the operation of water works or purification plants, would conduct short courses of instruction and examine applicants for certificates for water works operators. This bill was first reported unfavorably, then recommitted and reported unfavorably with a committee substitute, providing for examination before a board consisting of the State Health Officer, the State Sanitary Engineer and the Chief Chemist of the Food and Drugs Division of the Health Department. The bill died on the calendar. Your council felt that this was a meritorious movement, but felt that it should not bestir itself too energetically in its behalf, under the existing circumstances. There is no doubt but the Board of Health should have charge of and take steps to insure all municipal water supplies, if it has any function at all in preventing disease. As it is, municipalities, often governed by ignorant but well-meaning individuals, consider that all that is required is wet, clear water.

Pure Ice.—Senator J. D. Parnell of Wichita, introduced a bill (S. B. 102), which would prevent the use of any impure water or injurious chemicals or other impure ingredients in the manufacture of ice, and which would also provide against potentially harmful methods of handling. The bill would require license for the manufacture and sale of ice. This bill died on the calendar.

Sale of American Legion Hospital.—Senator J. D. Parnell of Wichita, and Representative R. J. Daniels of Wichita, and Geo. Purl of Dallas, introduced measures in the Senate and House, respectively (S. B. 129 and H. B. 230), providing for the sale of the American Legion Hospital at Kerrville, and the House bill was finally passed, with amendments. The terms of the sale are not material. The Governor signed the bill.

Chiropody.—Senator C. R. Floyd of Lamar, introduced in the Senate a bill (S. B. 139), which would repeal the law creating a Chiropody Board of Examiners. It was not known what was behind this movement. The chiropodists thought for a time that the State Medical Association was. While we would prefer that the chiropodists be controlled by the State Board of Health, and while we recognize that the present law gives to the chiropodist a field to which he is not entitled and which would be dangerous to the public should he undertake to cover it, the law is not without its good points, and until other and more important matters have been cared for it is perhaps best that this law remain as it is. This bill was killed in the Health Committee of the Senate.

The Sheppard-Towner Maternity Act.—A bill was introduced by Senator John Davis of Dallas (S. B. 169), and its companion by Representative John H. Veatch of Johnson (H. B. 275), repealing the law providing for acceptance of the Sheppard-Towner Maternity Act (Federal). These bills died on the calendar.

Embalmers and Undertakers.—Senator A. E. Wood of Williamson, introduced a bill (S. B. 271), establishing a State Board of Embalmers and Undertakers, which was along the usual lines. A similar measure was introduced in the House (H. B. 397), by Representative Jno. T. Smith of Travis. The Senate bill was killed on the floor of the Senate and the House bill died on the House calendar.

Cemeteries.—A bill by Senator John Davis of Dallas (S. B. 389), would prohibit establishment of cemeteries near incorporated towns and cities, except under certain conditions. This bill passed the Senate but died on the House calendar.

State Health Officer's Salary Increased—The salary of the State Health Officer was increased to $4,000.00 by a bill introduced by Senator T. J. Holbrook of Galveston (S. B. 460).

Amending the Veterinary Laws.—Representative (Dr.) B. F. Bean of Jasper, introduced a bili (H. B. 41), that would so amend the State Veterinary Law as to permit a license to persons who had not complied with the requirements of the present law. The bill was killed by the Health Committee, after the State Veterinary Association had appeared against it.

Licensing of Barbers was provided for in a bill (H. B. 318), introduced by Representative Jim Cade of Bexar. It is not known who was particularly interested in this bill, and it is probably of no particular interest to our members. It was killed in committee.

The council recognizes that this report is rather lengthy, but it is made in full not only for the immediate information of the profession, but as a matter of permanent record and for the sake of posterity. At that, the report could easily be much longer without going astray. There is much that is not reported upon here, but there is nothing that any member may not know, and the council stands ready to extend its report upon call.

The report is respectfully closed with the following recommendations:

(1) That the Association continue its policy of opposing any law or any amendment to any law, which would reduce the present standards and requirements relating to the practice of medicine or any part of it, in this State.

(2) That the council be authorized and directed to actively coöperate with other proper organizations and with the law-enforcement officials of this State, in securing the enforcement of the Medical Practice Act.

(3) That the campaign of public education be continued, and required to impress upon the public the value of scientific medicine in contradistinction to the unscientific variety thereof, both for the protection of the public in the matter of its health and to insure the enforcement of the Medical Practice Act.

(4) That the council be directed to continue to coöperate with the State Board of Health and other proper agencies and organizations in bringing about a satisfactory reorganization of the health work of the State.

(5) That the council be directed to continue the present efforts towards better care and treatment of the insane, in coöperation with such governmental and volunteer agencies, as may be deemed desirable.

Respectfully submitted,

M. F. Bledsoe, Chairman,
Holman Taylor, Secretary.

The President: One of the most necessary things to be done was to raise the salary of the State Health Officer. I could not get a bit of coöperation out of that gentleman. We finally got the legislation through, but it was on the very last day, and there were many complications.

This report will be referred to the Reference Committee on Reports of Officers and Committees. Next is the report of the Council on Medical Defense.

Dr. W. D. Jones of Dallas, presented the report of the Council on Medical Defense, as follows, with appropriate comment:

REPORT OF THE COUNCIL ON MEDICAL DEFENSE.

According to the report of our General Attorney, Mr. C. T. Freeman, there are 35 cases now pending against members of the State Medical Association, over various parts of the State. However, I am sure that a number of these cases have been disposed of and not reported, and that many of them may be considered dead cases on the docket. In regard to the latter class of cases, it has been our policy not to agitate or show any anxiety regarding them, as such action might cause a revival of interest on the part of the plaintiff.

Since our last report there have been fifteen cases disposed of, five compromised, four dismissed and six won by the defendants. It is, perhaps, advisable to comment on the cases compromised. All of these compromises were against the best interest of the medical profession, but inasmuch as the defendants carried insurance, and the companies insisted upon it, compromise was unavoidable. However, in one of these cases, for the first time since the Council was created, the Chairman of the Council advised compromise, because conditions were such in this particular locality, where a hospital was a joint party to the suit, that there were no hopes of victory. There have been six suits threatened but not filed as yet, and it is the opinion of the council that they will never be filed.

It is evident from this report that the cases undisposed of have increased, and that the number of suits filed during the year has increased, also, and while our financial condition may look healthy, a revival of these socalled dead cases could rapidly exhaust our funds, but it is not likely that this will ever occur. It is quite evident, however, that if the Council is going to assume the responsibility of prosecuting illegal practitioners and uphold the Medical Practice Act, the increased dues for this purpose should be placed in this fund and disposed of through this Committee. While it would increase the responsibilities of the Council, I believe that this would be the most logical manner to disburse this fund.

It will be of interest to know that the injunction feature of the Medical Practice Act has been upheld by the Supreme Court of Texas, and that the entire Medical Practice Act may be considered constitutional and the spending of money for prosecution will not be wasted on account of fear of the constitutionality of the law. In the prosecution of this injunction feature, the Council on Medical Defense employed special attorneys to carry the cases through the higher courts. Fees of this nature are usually larger than those required in ordinary cases.

It is with a great deal of pleasure that we can report that while we have had considerable expense, we are still breaking even on the $1.00 per member assessment for this fund, but it is quite apparent that we can not carry on a wholesale prosecution of illegal practitioners. Inasmuch as we consider it within our province to speak of enforcing the Medical Practice Act, we recommend that as soon as it is practical or the funds can be obtained, that a wholesale prosecution begin at the same time in all the larger cities in our State, as a sporadic prosecution in first one locality and then another would not be as effective as a wholesale, state-wide prosecution.

We wish to express our appreciation of the valuable services rendered by our General Attorney, Mr. C. T. Freeman, whose detailed report is on file in our archives.

Respectfully submitted,
W. D. JONES, Chairman.

The report was referred to the Reference Committee on Reports of Officers and Committees.

The President: The Report of the Committee on Scientific Work.

Dr. E. V. DePew presented the report of the Committee on Scientific Work, as follows:

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK.

It is the opinion of this committee that there is a splendid field for helpful work in improving the scientific work of this Association. To accomplish this, some definite outline or specific functions must be stated for the committee's work. A big step in this direction has been made in the recommendation by the Committee on Revision of Constitution and By-Laws in Chapter IX, Committees, Section 5 (a-2) as follows: "The Council on Scientific Work shall consist of five members. The members of the first Council shall be appointed for one, two, three, four and five years, and thereafter the President-Elect shall appoint to fill vacancies created by expiration of term of office. These appointments shall be confirmed by the House of Delegates, and shall be considered at the time of election of officers. The President and Secretary of the State Association and officers of Scientific Sections shall be ex-officio members of this Council. It shall be the duty of this Council to consider and report to the House of Delegates on all matters of scientific interest to the profession, on its own initiative or upon order of the President or the House of Delegates. It shall through conferences endeavor to coördinate the scientific work of the Association, including the work of the Scientific Sections and of the several standing and special committees on scientific subjects. It shall advise with the President and Secretary in the arrangement of the scientific program for the Annual Sessions. It shall have authority to consult or act in conjunction with other organizations in the accomplishment of its purposes, as declared in these By-Laws."

We recommend the above section with the exception that we believe the committee should be given more authority than is specified in the revised section. They ought to be able to determine how many papers should be given in a section as well as the character and length of the paper.

We feel that this committee should be a most important one, ranking next to the officers of the Association and Board of Trustees. The members should be chosen strictly from the standpoint of ability and usefulness to the Association rather than from the standpoint of personal favor. These members should be persons who are experienced in work of the society, not only in scientific work but in the making out of programs.

The committee should meet as soon after the annual meeting as practicable. They should have the program well in hand before the section chairmen are appointed. This year much was accomplished by this committee in conjunction with the various section chairmen. We believe when a permanent or rotating committee is chosen, it will be able to accomplish much more and that soon it will be an indispensable functioning body.

Unless something definite is provided for this committee, we are in favor of its abolishment.

Respectfully submitted,

E. V. DePew, Chairman.
W. F. Thomson,
C. P. Yeager,
Curtis Rosser,
A. C. Scott, Jr.

Referred to the Reference Committee on Scientific Work.

The President: Next is the Report of the Committee on Collection and Preservation of Records.

Dr. Frank Paschal of San Antonio, presented the Report of the Committee on Collection and Preservation of Records, as follows:

Report of Committees on Collection and Preservation of Records.

Your Committee on the Collection and Preservation of Records has the honor to submit the following:

Much interesting and important data to be employed in the proposed History of Texas Physicians and Texas Medicine was gathered during the year and is on file with the Secretary, Doctor Holman Taylor. During the investigations that was made it developed, that in all probability the practice of medicine by white men in Texas began over four hundred (400) years ago, or to be exact, in 1528. It would consume too much time to detail this historical fact, which no doubt will be fully elucidated in the proposed history. Besides the above, some remarkable evidence of the high standing of the profession was also found, and likewise will be made public.

We repeat our recommendation of last year: that the Secretary confer with the Board of Trustees relative to beginning the work of assembling and utilizing the data on hand, and that if in his opinion and that of the Board of Trustees, the work should be begun now, the House of Delegates so instruct.

Several years ago a recommendation was made by the House of Delegate that the sum of $2,500.00 be appropriated for furthering the work of collecting and preserving records to be used in the proposed history. We are under the belief that the recommendation which was favorably acted upon, has not been repealed. Your committee therefore recommends:

(1) That the appropriation above referred to shall continue in effect.

(2) That the collection of data be continued and that the Board of Trustees be instructed to appropriate, from the sum above mentioned, such amounts as in the judgment of the Secretary may be necessary to carry on the work.

(3) That the Secretary be requested from time to time to inform the President of the Association and Chairman of the Board of Trustees as to the progress of the work and to consult freely with them as to the financial needs for its continuance.

Respectfully submitted,

F. Paschal, Chairman.
J. D. Osborn.
Marvin L. Graves,
John T. Moore.
S. P. Rice.

Referred to the Reference Committee on Finance.

Dr. J. D. Osborn of Cleburne: I wish to ask the House of Delegates to listen a few minutes to Dr. Paschal upon the subject of the practice of medicine in the year 1528.

No objection being heard, Paschal continued:

Dr. Paschal: Two years ago, there was found in the archives of the Library of Barcelona, a communication written about four hundred years ago by Cabeza de Vaca, detailing his work when a captive among the Indians, and also giving the first account of Texas. Cabeza de Vaca's real name was Alva Nunez. The name Cabeza de Vaca means a "cow's head" and was inherited by him as an ancestral distinction, which was accorded for a notable service to Spain.

In 1400, Spain and the Moors were engaged in a life and death struggle. A battle was imminent between the Spaniards and Moors and the Moors out numbered the Spaniards whose condition was desperate. The Spanish generals were holding a Council of War when a lowly cow herder appeared at the outpost of the Spanish Army, and asked to be conducted to the Commanding General. He was taken to the latter's tent, but was received with no great courtesy by the officers, who were then planning for the battle. He revealed to the Spanish generals, that he knew a pass by which the Spanish troops could surprise and defeat the Moors. He said, "In order that you may not mistake the pass, I will place as a sign a 'cabeza de vaca.' It was agreed by the Council that they would accept the proposition. He placed the cow's head, as he said he would do, and the Spanish troops, thus guided, surprised the Moors and defeated them. This service rendered by the lowly cow herder was recognized by the King of Spain, who rewarded him with high rank and honor. The descendants of this cow herder were given, as a distinction, the name "Cabeza de Vaca."

The "Cabeza de Vaca" (Alva Nunez) of Texas History embarked from Spain in 1527, with the ill-fated Narvaez Expedition, which sailed from Spain in 1527 to explore Florida. This force landed on the north side of the Bay of Tampa and Narvaez with the majority of his men penetrated Florida in the search of gold.

Unfortunately, it does not seem to have been the policy of Spain to elevate a country; her aim and purpose was always gold. By conquests and discoveries Spain was, at one time, the mistress of the world in territorial possessions; today, she has fewer possessions than any other civilized nation of the world.

Narvaez's Expedition proved a failure. He was lost in the swamps and jungles of Florida, and the majority of his men perished. Feeling that their commander was lost and perhaps would never return, their food supplies becoming exhausted, with no possibility of replenishing them, the vessels that brought the expedition from Spain to Florida, sailed away for Spain, leaving Narvaez and his few remaining men stranded.

Finding their vessels gone, they built five barges and sailed from Florida in an attempt to reach the Panuco river at Tampico. Four of the barges were lost with all on board. Cabeza de Vaca and four companions in the fifth barge were cast ashore on Galveston Island. They were made captives by Indians and for six years they wandered between Galveston and Corpus Christi. They were looked upon by the Indians as superior beings (and, indeed, they were!). Cabeza de Vaca and his men made no pretense to a knowledge of medicine, but when any of the Indians would get sick, they would be called upon to treat them. If they refused to do so, the Indians would starve them. Theirs was therefore a compulsory practice of medicine; it was either render aid, starve to death, or be killed. Thus circumstanced there was no alternative; they were not pretenders by choice, but by compulsion. Cabeza de Vaca observed closely the way the native medicine men treated the sick. They would blow upon their

patients, use all manner of incantations, scarify with sharp stones over the seat of pain, suck the blood and cauterize the wounds. Cabeza de Vaca and his men would follow all of these practices except the latter. They would blow upon the patient, pray, make the "sign of the cross," sing and employ massage. The Indians would say after treatment that they were better. Whether they were better in reality or whether they said so through fear of the severer treatment that might be employed by their medicine men is, of course, a matter for conjecture.

After six years of captivity, Cabeza de Vaca and his companions made their escape. Their reputation as "Medicine Men" had preceded them, and they were thus enabled to pass from tribe to tribe unharmed. They finally entered Mexico, near Presidio del Norte, and from there made their way through the States of Chihuahua and Durango to Sinaloa, where there was a Spanish colony.

In giving this account, Cabeza de Vaca said, "that he did not know that there was so much breath in his body, as he had blown on those Indians; and that he learned how to pray vehemently and was thankful that his prayers had been answered."

At any rate Cabeza did no harm, and while we here are "Medicine Men," I ask anyone present who has not done any harm to raise his right hand. I see no hands raised; you have told the truth and may the Lord have mercy on your souls. (Laughter and applause.)

The President: The Committee on Memorial Exercises.

Dr. D. M. Higgins of Gainesville: The memorial exercises will be held at the First Baptist Church tonight at 8:00 o'clock. Dr. Decherd of Austin, has done most of the work, and he has arranged a good musical program. I will promise that we will not hold you long. That is all the report we have to make now.

The President: The Committee on Transportation.

The Secretary then presented the Report of the Committee on Transportation, as follows:

Report of Committee on Transportation.

Your committee is pleased to report that the railroads again agree to allow us the benefits of the identification certificate plan of securing reduced rates for our Annual Session. This is a matter of more importance than is generally appreciated. A member simply secures his identification certificate from his county society secretary, or the State Secretary, presents the same to the agent of the road over which he expects to make the trip, and secures as many round trip tickets as he may require for himself and his dependents, at the rate allowed, namely, one and one-half fare. There is nothing else to do but ride. There is no necessity for an accumulation of tickets at the place of meeting until there are 250 before members can buy return trip tickets, as would be the case on the straight certificate plan. For an organization the size of ours this is the preferred system, by all means. The selling dates are likewise favorable. Members may buy tickets as early as May 2 and as late as May 5, with return limit of May 9. These dates will allow those members who are interested in the several meetings to be held Monday morning, to reach Austin in time therefor, and will permit of most members reaching Austin as late as the second day of the meeting, which is quite a concession, considering that our meeting is of but three days duration. The M. K. & T. having extensive connections into Austin, and being the only road which advertised in the Journal for this occasion, was selected as the official route to the Annual Session.

Notwithstanding the poor success heretofore in assembling parties for the annual sessions of the American Medical Association, because of the willingness of several of the roads to make the effort, your committee again took the matter under consideration. Because of the most excellent service, and not forgetting that the M. K. & T. is the only road which has purchased advertising in the Journal, your committee has selected the following as the official route and the official schedule to the Atlantic City meeting of the A. M. A.:

Leave Fort Worth or Dallas (the concentration points) *via* M. K. & T., 4:55 p. m., Friday, May 22; arrive St. Louis *via* M. K. & T., 11:25 a. m., Saturday, May 23; leave St. Louis *via* B. & O., 12:00 noon, Saturday, May 23; arrive Philadelphia *via* B. &. O., 3:57 p. m., Sunday, May 24; leave Philadelphia *via* Atlantic City Railway, 4:00 p. m., Sunday, May 24; arrive Atlantic City at 6:30 p. m. (5:30 daylight saving plan), Sunday, May 24.

Attention may well be called to the fact that not only is the Baltimore and Ohio the most pleasing scenic route from the St. Louis gateway to the East, but it passes through three points of special interest to the medical profession, namely, Washington, Baltimore and Philadelphia, at each of which points stopover privileges are allowed on some of the reduced rate tickets. The trains used on the schedule above set out, will honor passes, under conditions which may easily be met.

The rates are the usual one and one-half fare for the round trip, on the usual certificate basis; that is to say that one way tickets are purchased and certificates covering the transactions secured from the agents selling the tickets, which certificates must be validated at Atlantic City, by the Secretary of the A. M. A., and that when so validated they are good for the purchase of return trip tickets at one-half fare, over the same route used on the first half of the trip. These tickets may be purchased in this manner as late as June 2, but not later.

The one way fare from Fort Worth or Dallas, the concentration points, is $58.51, which would make the round trip $87.77. The rates from any point in the State will be given upon application to any railway agent, or as herein directed. The Pullman rate, lower berth, from Fort Worth or Dallas to Atlantic City, will be $18.00, which would make the total cost of the round trip $123.77.

Those who desire to remain in the East for some time will do well to consider the regular summer tourist rates, which will be effective at this time. These tickets are good until October 31, and permit any sort of stop-over desired. The round trip rate for this ticket from Fort Worth or Dallas, will be $95.12, the Pullman rate remaining the same, of course.

There is a special round trip rate to Asbury Park and return, of $99.91. Purchasers of this ticket, which should be routed *via* Philadelphia, would find it necessary to purchase a side trip ticket from Philadelphia to Atlantic City and return, which would make the total cost for the round trip, $103.66. Those desiring to spend some time in New York City will find this the best buy.

A through Pullman to Philadelphia will be furnished for a party of fifteen, and a special Pullman all the way through to Atlantic City will be furnished if there are twenty-five in the party. It is of importance, therefore, to concentrate for this trip, a thing which our members seem rather reluctant to do. Those who are interested are advised to communicate

with Mr. J. G. Smith, Division Passenger Agent, M. K. & T., Fort Worth, and without delay.

Respectfully submitted,

HOLMAN TAYLOR, Chairman.
E. P. MILLER.
N. A. POTH.
F. W. LAWSON.
T. J. BENNETT.

Referred to the Reference Committee on Reports of Officers and Committees.

The Secretary: Dr. Cloud, Chairman of the Committee on Publicity, asked me to read this report if he were not here when it was called for. He is very busy with the newspapers.

REPORT OF COMMITTEE ON PUBLICITY.

Working under the advice and guidance of our esteemed Secretary, Dr. Holman Taylor, we have found our duties well defined and rather easy of execution.

Your Committee requested abstracts from the authors of all papers whose names appeared on the official program, and many were supplied. These were tabulated, with release dates marked plainly thereon. We are keeping in close touch with the press representatives and thus far have furnished them with such matter for publication as the Committee has thought advisable.

An abstract of the President's address has been furnished the Associated Press, as well as such papers as requested separate copies, and the committee was assured that this would not be released for publication until after delivery on the morning of the 5th. The press has assured us that they will make a special effort to properly cover every phase of the meeting.

Your present committee recommends that hereafter all papers dealing with matters of general interest, and especially public health matters, be furnished the Publicity Committee several weeks in advance of the Association Meeting, in order that proper publicity may be arranged for. This matter has been brought to the attention of the Association on previous occasions, and we deem it of sufficient importance to reiterate it.

We take this opportunity to state that we heartily appreciate the coöperation and assistance given us by the press representatives, and also the Austin Chamber of Commerce, through its efficient Secretary, Walter E. Long. They have all shown unusual interest, and have assisted in every way possible to make this meeting the success we feel sure it will be.

Respectfully submitted,

RALPH E. CLOUD, Chairman;
M. P. SMARTT,
CHAS. W. SHIPP,
G. M. GRAHAM,
Z. T. SCOTT.

Referred to the Reference Committee on Reports of Officers and Committees.

The President: The Committee on Scientific Exhibits. Dr. R. E. B. Bledsoe, Chairman. In justice to Dr. Bledsoe, I want to say that if he and I are related, we don't know it.

The Secretary: I will take the liberty of making this report for Dr. Bledsoe in order that it may go to the proper Reference Committee today.

REPORT OF COMMITTEE ON SCIENTIFIC EXHIBITS.

Your committee begs to submit the following report and recommendations: In view of the creditable exhibits achieved by our predecessors we desired to make an equally elaborate, spectacular and educational exhibit for our Austin meeting, and laid our plans accordingly.

In working out the details of our plans, we have run "plumb up against" a hiatus or, perhaps, a better simile would be, a snag that ripped a hole right through the bottom of our barque, our plans sinking to the bottom with a loud "kerplop," and only the most heroic efforts have been able to salvage a few of the minor details; this aforesaid snag being an impervious, spasmodic stricture of the purse strings of the Board of Trustees in the proposed financing of the exhibits.

Dr. William Keiller, in a personal conference, stated that the preparation of an exhibit for shipment, such as was contemplated by our committee, was a task of the first magnitude, fraught with a considerable degree of danger to highly prized and valuable specimens, regardless of infinite care in the packing, and personal attendance upon the exhibit while in transit. The good doctor expressed his entire willingness and readiness to further the educational interests of the profession at large, in any way possible, but pointed out, further that the item of expense made such a program out of the question for him.

Dr. Moursund, Dean of Baylor, also expressed his entire willingness to help and sympathy with the plans of the committee for the proposed exhibits, but pointed out, also, that the item of expense would preclude his participation.

In a personal conference with Dr. John T. Moore, Chairman of the Board of Trustees, he indicated that from the standpoint of the Board, the advantages derived from such an exhibit as had been proposed, and formerly shown, were not commensurate with the expense involved, and so believing the Board could not authorize the expenditure required.

The only exhibits arranged for at this writing, are a symposium on diabetes, with "transparencies" for the microscope and lantern slide projections by the Assistant to the Chair of Pathology, University of Texas and a small exhibit by Dr. G. A. Wedemeyer of Taylor. We may secure another exhibit of some magnitude, provided the exhibitor defrays all expenses.

In view of the facts and the conditions set forth above, the writer feels impelled to make the following recommendations:

(1) That the Committee on Scientific Exhibits be furnished with the programme of the oncoming meeting at the earliest possible moment, in order that it may prepare elucidating exhibits, germane to the scientific papers to be read at such meeting.

(2) That the personnel of such committee be composed, largely if not entirely, of those particularly interested in pathology, and having access to an adequate laboratory and museum.

(3) That the personnel of such committee be continued over a period of several years, in order that the policy of having the scientific exhibits hand in hand with the scientific papers of the programme, may be definitely worked out.

Should these recommendations be adopted, I am of the opinion that the Board of Trustees will willingly ratify the matter of expense involved in the preparation, shipping and display of the proposed exhibits.

Respectfully submitted,

R. E. B. BLEDSOE, Chairman.

The President: I will refer this report to the Reference Committee on Finance, and ask the Reference Committee on Scientific Work to also give it consideration. The Committee on Medical Education, Dr. M. L. Graves of Galveston, Chairman.

Dr. Graves: May I say, too, in this connection as the Representative of the Association to the Council

on Medical Education, that this year for the first time in many years I was unable to attend the Conference on Medical Education, so under that head I prepared no report. The report of the Committee on Medical Education will include such information as I would have given as that special representative.

Report of Committee on Medical Education.

ORGANIZATION OF INSTITUTIONS

Medical education had no organized form or character in the United States until after the middle of the eighteenth century. Practitioners of medicine operated without much regard to qualifications, either academic or professional, though there were many well educated physicians who made study trips to England and France and brought back valuable information on medical matters, and thus stirred the enthusiasm of the stay-at-homes. These journeys in search of scientific knowledge probably aroused the first concerted effort to establish a recognized medical college in America. During and after this time —indeed, until three or four decades ago, the preceptorial system obtained throughout the country; and young men desiring to study medicine attached themselves to practitioners, becoming assistant and understudy for a period of years. This system was highly useful during a long period of time when medical education was in its swaddling clothes.

The first medical college in America was the College of Philadelphia, which was organized in 1765; in which Doctor John Morgan was the first Professor of the Theory and Practice of Medicine, and afterwards filled the Chairs of Anatomy and Surgery—a custom which obtained in a good many institutions for a considerable period of time. This institution became united with the University of Pennsylvania in 1791, and became its Medical Department. Harvard came into being in 1783, and Yale opened its doors in 1817.

From these unpretentious beginnings it was not a far cry until Thomas Jefferson, the Great Democrat, established the first of the state universities, in 1819, in Virginia, thus creating the inspiration and example for great state-supported medical colleges. The idea was slow in developing, but persistent and tenacious, and has culminated in the organization of great medical teaching centers in a large number of the American Commonwealths. The University of Michigan started its splendid Medical School in 1837; Wisconsin in 1848; California in 1868; Minnesota in 1869, and Texas in 1891.

From a mere handful of professors, frequently unpaid, and always on small salaries, the American system of medical education has advanced to its present high position, in which fundamental education in the medical sciences is supplied by eighty medical schools, so standardized and with such large teaching staffs and resources that no aspiring young man or woman with capacity and ambition need suffer serious handicap in securing a first class medical education.

The original faculty of the College of Philadelphia consisted of *few* teachers; while today, such institutions as Harvard, Hopkins, and the University of Chicago have faculties and teaching forces numbering hundreds, and organization has reached a high degree of efficiency, with well equipped laboratories, fine museums, excellent libraries, and all other necessary facilities.

Institutions for medical education in America may now be said to be static, or in equilibrium. This means to say that primary education is now available in seventy Class A and in four Class B medical schools, so distributed throughout the United States that their advantages are within the reach of every one.

MEDICAL EDUCATIONAL AGENCIES.

Many important agencies have contributed to the present efficiency and thorough organization for medical instruction. Notable contributors to the cause may be briefly summarized as follows:

(a) In 1867, Johns Hopkins, a philanthropic merchant of Baltimore, with a wide vision, and altruistic interest in his fellows, gave seven million dollars to found the great university which bears his name, and which introduced into America the great scientific system of university medical education, of which the German universities were then and for many years afterwards, brilliant leaders of the world; and although the institution was not opened until nine years later, its influence soon permeated the entire country, and under the able and inspiring leadership of Doctors Welsh and Osler, this institution began, and gave to the medical profession of America an illuminating example, a fine teaching service, a splendid scientific research and activity, and generally, a spirit of investigation and high attainment which has been of untold value to other institutions in the Nation.

(b) The next important movement for better medical education arose within our own organized ranks; namely, in the Council on Medical Education in the American Medical Association, which subsequently enlarged its duties to embrace hospitals, and is now known as the Council on Medical Education and Hospitals. Its noteworthy survey of 160 or more medical institutions of the country twenty years ago, revealed a deplorable state in our educational activities, running the gamut from pure commercialism and inefficiency, to limited efficiency and real scientific spirit and purpose. The campaign inaugurated by the American Medical Association, through this Council, steadily reduced teaching institutions in numbers and increased their equipment and their personnel, until today the eighty schools of the country appear to be entirely sufficient for our primary educational needs in medicine.

(c) The organization of the Carnegie Foundation for the Advancement of Teaching, to which Andrew Carnegie gave ten million dollars in 1905, five million dollars in 1908, and subsequently added other large sums, has undoubtedly stimulated active progress in medical education throughout the country.

(d) In 1910, Dr. Abraham Flexner, in "Medical Education in the United States and Canada," a masterful presentation of our system, clearly setting forth its defects, so stirred the entire country that it resulted in a demand for rapid improvement in medical education, which has gone forward with amazing progress.

(e) In 1910, John D. Rockefeller gave ten million dollars to found the Rockefeller Institute for Medical Research in New York City, and this institution, under the wise guidance of Dr. Simon Flexner, has continuously added researches of high scientific value in medical science, and made available many remedies of distinct value; and through its example and influence, and contributions to medical literature, has helped to put America in the forefront of medical science and education.

(f) Next in chronological order would rank the Mayo Foundation, which made available for teaching purposes under the aegis of a great State University, the greatest private clinic in the world. This organization's humanitarian and scientific spirit, its contributions to medical literature and to curative medicine, its supply of medical teachers, highly trained and efficient, its large sums (more than a thou-

sand dollars a day) devoted to research problems, have made this institution the source of inspiration and practical usefulness in the field of medical education scarcely surpassed by any other agency.

(g) To the above agencies, exercising enormous influence on the advancement of medical science, we must add the large number of excellent medical journals, headed by *The Journal of the American Medical Association* and special scientific journals throughout the country, which have given high grade medical literature of enormous teaching value.

It might be said now, that our country is second to none in primary medical education, and that with its present facilities and those sure to follow, we can safely predict that our needs in this respect will be met for years to come.

POST-GRADUATE FACILITIES AND INSTITUTIONS.

While undergraduate medical education is on a high plane of efficiency and geographic availability, the need for larger and better post-graduate facilities for the profession at large is a notable and outstanding fact. The post-graduate schools of the country are too few, and are geographically unavailable for the mass of practitioners. This crying necessity must be met by the organization of post-graduate facilities in state and other institutions, and by other agencies, to keep the physician abreast of medical progress. Our own State has made a small beginning in its two medical colleges by giving summer courses of diagnostic clinics of two weeks' duration. The next are to occur at Galveston and at Dallas, June 8th to June 22nd, this year. For the past three years these courses have been given to increasing numbers of earnest student-practitioners, and satisfaction has been expressed by those in attendance. But these efforts constitute only a small beginning, and must be supplemented by other and larger and better organizations. The Interstate Post-Graduate Assembly of America, the annual meetings of which are of the greatest value, offers its present clinical tour to Europe, one of the most ambitious and useful methods of bringing a large number of physicians into touch with world progress in medicine.

It is hoped such agencies will increase until the opportunity is available to the great mass of earnest and conscientious practitioners throughout the country.

In Texas, our two medical colleges, the Medical Department of the University of Texas and the Medical Department of Baylor University, continue to make useful and satisfactory progress. They need a larger support; they are quite capable of handling our own undergraduate problems in this State and territory, but are not prepared as yet for large activities in the post-graduate field. With concerted effort upon the part of the profession, it is believed that provision may be made for an enlarged service in these institutions within the next few years.

STATE LEGISLATION—PSYCHOPATHIC HOSPITALS.

One of the most important steps forward ever taken by the State of Texas, occurred during the recent session of our Legislature; and this act will have great influence on the medical education of the young men and young women of Texas, in the domain of mental diseases. The new law, (House Bill No. 249) passed by the Legislature just adjourned and approved by Governor Ferguson, provides for the more enlightened commitment of the insane; the designation of our state institutions as hospitals instead of asylums; and, best of all, for the establishment of two psychopathic hospitals, one at Galveston, the other at Dallas, available for teaching purposes in our two medical colleges. This enlightened and humane law provides scientific hospital facilities for acutely disturbed mental cases, and has made available the treatment of acute cases before chronicity and incurability is established; and in addition, puts this splendid service within the reach of the medical students in our teaching centers, and will give them first hand information in the modern care of mental cases. With proper organization and equipment, and with this utilization, the psychopathic hospitals will have a large educational value, and reflect honor upon our State.

PROBLEMS OF REVISION AND CONSTRUCTION.

It must not be understood from the foregoing rather optimistic recital of the educational agencies and institutions of America that we have no problems to solve, no improvements that should be made. We do have deficiencies, and they must be clearly diagnosed and successfully treated. We do have problems calling for constructive thought and united effort of the profession for their solution.

Some believe our educational requirements for admittance into the medical schools, are too exacting. In some eight or ten institutions, B. S. or B. A. degrees are required. In nearly all the others, at least two years of good college work are necessary for entrance. These requirements are thought by some to be excessive, and they believe that a good high school education meets every necessity, for preparation for the study of medicine.

Others believe that the curricula are too rigid and that many are refused because they lack some so-called essential in the premedical sciences, such as Physics, or Biology, when, in fact, they have well equipped minds and excellent training, and are thoroughly capable of making useful practitioners; and further, that the people need them.

Many consider the length of time spent in academic, and even in medical curricula, too long, and urge that three years of intensive medical instruction, with one year of hospital service, is sufficient to prepare medical students to become successful practitioners of medicine.

A yet larger number believe that the cost of medical education is now excessive; that many deserving young men who would make great physicians are barred from entering the profession because of the long years and heavy expense, which they cannot afford.

Dr. William A. Pusey, a great practitioner and worker in scientific medicine, and President of the American Medical Association, is the champion of some of these views; and he sets them forth with clarity in a series of five articles recently running in *The Journal of the American Medical Association.* These articles are worthy of careful consideration by the members of our profession. Dr. Pusey asserts that a good high-school education is sufficient preparation, and makes a plea for a three-year medical college course, the first two and a half years to be spent in the college and the last year and a half to be spent in the hospital. He thinks that this will materially shorten the course, diminish the expense, secure larger entrance classes which will prove their worth and capacity in the future as in the past, and in the end, will supply the country with much needed physicians. His data has been carefully collected and forcefully presented, and shows conclusively that young men highly educated and graduated from the most prominent of our medical colleges scarcely ever return to the rural districts to practice. He shows that out of the graduates from Hopkins, numbering 1,500, only 2.46 per cent returned to rural districts. Furthermore, he points out that in rural counties, namely, those with few or no towns above 2,500 in population, of which there are many, widely separated

in the American States, the average age of practitioners of medicine is from 52 to 57 years, and that no young men are considering these country locations. He foresees great paucity of physicians from these signs in another decade or two, and urges the necessity of preventing such a shortage.

Many now think that the tendency of our great schools, and even of the lesser ones, to limit unduly their numbers, is an increasing evil; and while they give full adherence to the customs of schools to regulate their numbers in accordance with their equipment, their laboratories, their faculties and their hospital facilities, they firmly believe this competition has led to unnecessary restriction in numbers; that many of our larger and better schools are amply able to give proper medical education to a larger number, and thus, to a certain extent, reduce the inevitable expense. This might require some reorganization of their teaching units, but it is believed that this could be done without impairment of their efficiency, and with increasing value to the public.

Further, a considerable and growing number believe that too many schools are educating specialists and requiring large and unnecessary detailed studies in anatomy, chemistry, and such specialties as ophthalmology and otology, and even in medicine and surgery, than is necessary or desirable for the general practitioners of medicine, who must for a great many years be depended upon to do the family practice throughout the nation. They contend, and with much reason, that the primary function of the medical school is to educate practitioners for general service among the people, and that research workers and specialists desiring greater facilities and more extended curricula should have them supplied in years of study after the regular medical course has been completed and the regular medical degree has been conferred.

It is entirely too early to find the solution to all these questions; but the fact that earnest, thoughtful men believe, after investigation, that reforms are necessary is, itself, evidence of progress; and while we believe no backward step in medical education can be taken, and that social, economic, scientific, professional and public welfare problems mentioned in this report for the information and consideration of our fellows are not yet capable of final determination, we confidently believe a way may be found to safeguard the advances in medical education already attained, and ultimately correct our major and minor defects, and be able to present to the country a perfected system of primary and graduate medical instruction.

Respectfully submitted,

M. L. Graves, Chairman.
R. S. Killough.
C. C. Cody.
John H. Burleson.
C. R. Hannah.

Referred to the Reference Committee on Scientific Work.

Dr. F. P. Miller of El Paso, submitted the report of the Committee on Hospital Standardization, as follows:

Report of Committee on Hospital Standardization.

We have made careful investigations of the William Beaumont General Hospital at El Paso, and the U. S. Army Station Hospital at Fort Sam Houston, San Antonio, and have recommended to the American Medical Association that they be placed on the list of hospitals approved for internes.

We have visited a number of other hospitals as individuals, but our activities did not officially extend beyond these two, in making official investigations for the American Medical Association.

Respectfully submitted,

H. F. Connolly, Chairman.
Homer T. Wilson.
F. P. Miller.
H. L. D. Kirkham.
J. E. Thompson.

Referred to the Reference Committee on Scientific Work.

Dr. W. B. Thorning of Houston, read the report of the Committee on Compensation and Health Insurance, as follows:

Report of the Committee on Compensation and Health Insurance.

The conditions for the period since last year's report have been very little changed in spite of the fact that the Legislature has met. There was presented in the House and Senate, by one of the component societies of the State, a bill to amend the present Workmen's Compensation Law so as to extend the period for medical treatment until such time as the patient was cured. This was a worthy amendment, but it died in the committee. We feel that component societies having good ideas that affect all the State to present to the Legislature, would do better if they would present them through the State Association and let them come through one of the regular committees, which can arrange a program to help the bill through, if they know about it in advance.

There is a tendency on the part of large companies to put on full time doctors, on comparatively small salaries, to do both accident and health work among their employees, the compensation insurance practically paying the salary. This practice should be discouraged because it tends to lessen efficiency, in that it demands such a variety of expert service from one man, and all of his time, usually for a wage that he can just live on, and offers no future.

Railroad hospitals, the pioneers in socializing medicine, teach a semi-charity service to all employees from a $30,000 president down to the lowly Mexican track laborer, and pay the physicians serving them salaries varying from $6,000 for chief surgeons to a complimentary pass for local surgeons. Social and charity workers have projected themselves deeper into the field of medical activities and have broadened the field of charity until we feel that unless the subject is carefully studied and a sharp line drawn between what should be charity and what should not, that it will finally reach a point, as indeed it has already done in some of the larger medical centers of the East and in Europe, where it is difficult for younger medical men to establish themselves unless they are financially independent.

A study of proposed legislation over the country discloses that efforts to attain State Medicine are still being made, although there have been none made in this State.

There should be compiled and printed each year, a report from the State Industrial Accident Board to show the number of accident cases reported to it, the amount of medical expense attached to the treatment thereof, and such other information as would be of advantage to this Association. This could be done at a comparatively small cost.

We should discourage organizations which offer free, or practically free, medical service to those who are not otherwise subjects of charity.

This Association and its component societies, should be as closely organized on a financial basis as they are on a scientific and educational basis, and there should be proportionately as free discussion in the

JOURNAL of the financial welfare of the members as of their scientific attainments and opportunities.

A. PHILO HOWARD, M. D., Chairman.
EVERETT JONES, M. D.,
B. A. SWINNEY, M. D.
J. A. GIBSON, M. D.
H. B. TRIGG, M. D.

Dr. M. L. Graves of Galveston: I move that these reports be read in full and not merely synopsized. I think most of the members are, like myself, willing to sit here as long as necessary to get the information and facts contained in the reports. We will never do so otherwise.

The motion was seconded.

Dr. W. D. Jones of Dallas: I think that every member who reads the JOURNAL reads these reports.

The President: Since there is no provision for an earlier convening of the House of Delegates than the first day of the Annual Session, and it is not anticipated that we are going to remain beyond the last day, it will be almost impossible to read these reports in full. For that reason it has been the custom to present synopses of reports, the full reports being published in the transactions.

The motion was put and lost.

The President: The report of the Committee on Compensation and Health Insurance will be referred to the Reference Committee on Reports of Officers and Committees. Report of the Committee on Cancer.

Dr. A. C. Scott of Temple: Dr. McGlasson has an engagement which is keeping him away. He has asked me to submit his report for him.

REPORT OF COMMITTEE ON CANCER.

The Statistics of Hoffman, quoted in our annual report for 1923, have not been changed materially. A casual examination would seem to indicate an increase of cancer; but when it is remembered that an intensive campaign against cancer has been waged for the past five or six years, educating both the public and the profession on its early recognition and its terrible mortality, it would seem natural to expect this interest to make statistics much more significant and reliable. Many cases of cancer are recognized that were formerly overlooked. Many victims of cancer are consulting the physicians, who, before this campaign of education was inaugurated, concealed their affliction even to the end. This campaign has not only benefited the public, but has stimulated the medical profession so that the art of diagnosis has never, in medical history, been on a higher plane. The public has been impressed with the stern necessity of consulting only the best medical talent, and users of cancer-paste, followers of Abrams, faith healers and other quacks, have been steadily losing ground. This explains an apparent increase in the disease, which is only an increase in those receiving proper treatment. So much stress has been put on the disease, in an effort to combat it, that we have also received more reports on vital statistics. Considering the little we know of the etiology of cancer, it is not believed that there is any cause operating now that is different from that of former years that would justify an increase of the disease. Therefore, we see no justification for any feeling of pessimism along this line, and the foregoing conclusions can only result from perfect morbidity and mortality reports. God speed the day when correct vital statistics are available.

TREATMENT OF CANCER

No advances of importance in the treatment of cancer have been made since our last report. Accepting this fact, we have only those to use that we are familiar with in the treatment of well developed and advanced malignancy. Until further and more satisfactory methods of treatment are devised, we must place great emphasis upon the importance of early recognition and early radical treatment of early or precancerous lesions. We are convinced that the cures effected this way, if known, would create a feeling of optimism, the psychology of which would aid us materially with both the public and the profession. It goes without saying that our city fire departments do not save all buildings that are endangered; but they prevent many fires and stamp out many incipient blazes, and restore to use many buildings that are somewhat damaged. Without the fire departments, the losses would be total, so we recognize their maintenance as a necessity. It is likewise true that, even though we cannot cure all cancers, we may be heartened by the fact that we can effect remarkable results by early diagnosis and immediate, radical treatment.

EDUCATIONAL CAMPAIGN

The Cancer Committee has maintained a seemingly less strenuous campaign, but there has been a more intense plan in operation than ever before. A much larger percentage of people have been intelligently informed. This is due to the general educational campaign sponsored by the State Medical Association. Cancer was discussed by every speaker, and the effects have been far-reaching. The Chairman and Dr. Scott, of this Committee, had many opportunities to discuss this highly important subject, and have sought additional opportunities for the presentation of the problem, which is so vital to the well-being of the general public. These talks have been given in the simplest form, and co-operation and responsiveness have been felt in every instance. The various clubs—notably the Rotary, Lions, Kiwanis and Conopus, have readily responded, and many ministers have tendered us the use of their churches. It is regrettable that physicians all over the State are not availing themselves of these splendid opportunities. It is particularly desirable that every physician realize the importance of doing his part in this program, as there are only five members of this committee, and Texas is a large area to cover. In this connection we cannot overlook this opportunity of calling attention to the splendid work Ex-President Dr. A. C. Scott has done for the committee. He has never overlooked a chance to further the campaign and promote this work, and he has done so many years. His work, as a State Committeeman for the National Society of Cancer Control, has served to keep us in touch with this organization, so that there has been no duplication or interference one with the other. We desire also to express appreciation of the sympathetic and encouraging assistance rendered by our worthy President, Dr. M. F. Bledsoe.

PUBLICITY

News agencies and the press in general, are apparently taking more interest in our campaign than ever before. Many worth while articles have appeared in our nationally read magazines, during the past year. *The Saturday Evening Post* recently published an editorial that was splendid and to the point. A better avenue of approach than the press cannot be had. It is the means of reaching all, whereas talks before clubs, in churches, and by radio, may not be as far-reaching. We are in no way decrying a good public address on health questions, which is in itself a news item, and adds to our publicity. Our primary object is to reach everybody, and, consequently, we must use every available channel. It is suggested that our efficient and capable State Secretary might send such articles as can be prepared, out over his own name, to avoid the criticisms sometimes made that the individual is profiting more than the State Asso-

ciation. I am perfectly aware that Dr. Taylor is an overworked man, but at least we could borrow his name, so that the State Medical Association, and not the individual, would get credit for the work. If the educational campaign is continued, this could be a joint work with the Cancer Committee.

RECOMMENDATIONS

(1) That publicity be recognized as the only medium by which we can reach the public, and that this work be continued.

(2) That this publicity be divided between public addresses on suitable occasions, and through the press in a vigorous but conservative manner.

(3) That cancer clinics be encouraged in every city large enough for the purpose, and where material is available for the education of the profession.

(4) That all scientific meetings, either county, district or state, have a place on their programs for papers discussing all phases of the cancer problem. This will enable every medical man to keep abreast of all diagnostic advances, so that he can recognize cancer at the very earliest moment, and institute rational and radical treatment.

Respectfully submitted,

I. L. McGlasson, Chairman.
R. E. Barr.
Sydney J. Wilson.
A. C. Scott.
W. T. Dunning.

Referred to the Reference Committee on Scientific Work.

Dr. C. W. Goddard of Austin, then read the report of the Committee on Health Problems in Education, as follows:

Report of Committee on Health Problems in Education.

After a careful study of the present health conditions in schools of the State through information obtained from many sources, especially through the courtesy of the State Board of Health, the State Department of Education, State Teachers' Association and the University of Texas, we have made the following summary:

Many of the rural schools have no health supervision except that supplied through the enforcement of state quarantine laws, and these laws are not in many instances very successfully enforced. Some of the less severe infectious and contagious diseases are treated very lightly by many people and receive only such attention as the local physicians can voluntarily and gratuitously give them, the teachers often being helpless to do anything for want of coöperation on the part of parents. No health habits are taught. No instruction in hygiene is given, and the children can do no more than hand from one to another those infectious diseases which so often find their way into schools.

In the rural aid schools, or those better grade rural schools having advanced by uniting several small schools and receiving special state aid, and the small town schools we find that from a crude system of hygiene and health habits to a somewhat improved system, is being taught and practiced. School boards and teachers of some of these schools speak with pride of their physical training and physical education departments, but upon analysis it is found that they do not differentiate between athletics and physical training. In some instances even the superintendent and school board proudly refer to their physical training department when they are supporting only a baseball team. In some of the schools physical training is attempted, but is largely a failure for lack of trained teachers. Lunch rooms are often run in competition with hamburger stands, and a somewhat similar food is served, both of which are detrimental to health.

In the town of Baird, at the instance of the University of Texas, the County Medical Society assisted by teachers, examined about 300 school children, with the following results: 66 defective vision, 149 conjunctivitis, 3 defective hearing, 214 bad tonsils, 9 mouth breathing, 146 defective teeth, 151 enlarged glands, 31 pyorrhoea, 111 pharyngitis, 86 poor posture, 10 per cent underweight and 96 undernourished.

Of the 96 undernourished, 19 had no milk in diet, 14 had no cooked cereals, 18 had no vegetables, 5 had no fruit, 12 had no tooth brushes, 10 had no bathing facilities, and 2 were sleeping with windows closed.

In some of the larger cities splendid programs of health supervision, teaching hygiene, health habits, physical training and athletics, are being developed. Not only is this done by trained teachers but by school physicians and nurses.

The colleges and universities have systems of health supervision which are more or less complete, the Health Service of the University of Texas being one of the most complete in all the country.

We wish to make an exception and at the same time make special mention, of the little town of Mission. Mr. S. R. Rosette, principal of a school in that city, composed of Mexican children, and who is also a medical student, has organized a clinic in the school. Two Mexican girls who have had special training have charge of the clinic, and under the direction of Mr. Rosette are taught first aid, health habits, nursing, hygiene and physical training, including daily outdoor drills, etc.

The foregoing suggests the question, What can be done to improve these conditions? We may answer, employ better trained teachers, teach hygiene, health habits, etc., in all grades, and provide, when possible, health supervision by physicians and nurses.

To meet the needs of all, from the rural schools to the University, a united plan should be worked out through well defined coöperative program of health activities by the State Board of Health, State Department of Education, State Teachers' Association, Texas State Medical Association, and all local medical societies, local health officers, school boards, Texas Public Health Association, Parent-Teachers' Association, Federated Clubs, Mothers' Congress, Red Cross, and other organizations interested in better health. If these forces can be combined and coördinated into a working machine and this machine take for its guidance the report of the Joint Committee on Health Problems in Education, of the National Education Association and the American Medical Association, we believe the problems could be in due course of time satisfactorily solved. Therefore, we beg to recommend:

1. That the State Medical Association give its endorsement to the joint report of the Committee on Health Problems in Education, of the National Education Association, and the American Medical Association, and urge all of its members to give publicity to this report, with a view to encouraging school boards and teachers throughout the State to secure copies of said report, which may be had for fifty cents per copy through Dr. J. M. Dodson, 25 East Washington street, Chicago, Illinois, or Dr. Thomas E. Wood, Columbia University, New York City.

2. That the Secretary of the State Medical Association be instructed to invite the State Board of Health, the State Department of Education, State Teachers' Association, Texas Public Health As-

sociation, University of Texas, and such other organizations as he deems wise, to appoint special committees to study health problems in education, and to meet in joint session during this year with your Committee on Health Problems in Education, for such deliberations as their judgment may dictate, looking to combined, organized efforts in improving health conditions in our schools, in coöperation with the national committees, and that a report of the results of said conference be submitted to this Association by its committee at the next Annual Session.

We wish to re-endorse and resubmit the recommendations contained in our report last year, as follows:

1. That the importance of teaching health habits to school children be recognized along the lines indicated by Theresa Dandill's Manual entitled, "Health Training in Schools."

2. That the State Department of Education be requested to include in its annual recommendations to County Teachers' Institutes, such work on health problems as the technique and subject matter of teaching health habits, school hygiene and sanitation, and medical and physical examination of school children.

3. That by this action the combined efforts of the American Medical Association and the National Education Association in this direction be endorsed and coöperation with them urged.

Respectfully submitted,

C. W. Goddard, Chairman;
J. M. Frazier,
R. B. Ehlinger,
J. J. Terrill,
Dru McMicken.

Dr. Goddard: The State Medical Association should take the initiative in this matter and request the appointment of committees by each of the organizations that are actively engaged in health work, and bring about a meeting of these committees for the purpose of discussing these questions and getting down into a concrete, practical system of coöperative activity. My suggestion, and the committee's suggestion, is that the official organizations be Federalized into a bureau. The organization should be so coördinated that there will be no duplication of effort. The Health Department should handle all problems of health, the Educational Department all problems of education. By this method we can really accomplish something, and there will not be the conflict which I have seen up here on the hill. Sometimes one department will make out a budget for the Legislature and another department feels that it is being encroached upon and objects. The result is that both appropriations are cut, whereas, if they coördinated their efforts and applied the funds available not only from official sources, but from auxiliary sources as well, they would get somewhere.

The President: Referred to the Reference Committee on Scientific Work. The Committee on Revision of Constitution and By-Laws. I will ask the Secretary to submit that report.

The Secretary: Since this report was written the committee has held another and a very extensive session, and come to unanimous agreement on all the points that were at difference before; therefore a supplementary report is submitted with the original printed report.

Report of the Committee on Revision of Constitution and By-Laws.

This committee was appointed at the instance of President Dr. Becton, two years ago. It was not able to submit a report last year because of interference by the publicity and educational campaign which had to be organized and pushed just at the time this committee should have functioned. As it happened, several members of the committee were prominently connected with the enterprise just mentioned. The committee has finally agreed upon a revised version of the Constitution and By-Laws, which is submitted herewith. It may not be said that each provision has been agreed upon unanimously by the committee; indeed, the contrary is true. At the same time, the committee has so nearly agreed upon the principal items as to make this really a remarkable instrument. It is never an easy matter to entirely rewrite a Constitution and By-Laws. The task is particularly hard when an organization such as ours is concerned. There are so many views and often so many and such divergent interests, that it would be out of the question to expect everybody to agree readily with any group of provisions that might be made. The committee has decided that those who differ with the majority shall present their views at the time the report is up for discussion rather than to prepare minority reports, if, indeed, the differences of opinion are of such consequence as to call for minority reports.

Three propositions have been submitted to the committee by the House of Delegates for consideration:

(1) That the Committee on Scientific Work should be denominated a council and be made up of members with overlapping terms of office. It will be noted that this has been done. Indeed, the committee has gone further and added to this council, *ex-officio*, the President, Secretary and officers of scientific sections of the State Association, making a combination which should be in position to do constructive work along scientific lines.

(2) That the captions of scientific sections be changed as follows: Section on State Medicine and Public Hygiene to be denominated "Section on Public Health;" Section on Ophthalmology, Otology, Rhinology and Laryngology to be known as "Section on Eye, Ear, Nose and Throat;" Section on Medicine and Diseases of Children to become the "Section on Medicine," and the Section on Gynecology and Obstetrics to become the "Section on Obstetrics and Gynecology," with the second day of the program each year to be devoted to obstetrics. The committee has made the first two changes but hesitates to make the third and fourth. The diseases of children have only within recent years come to be considered a specialty, and a number of devoted students of medicine in Texas are very active in developing this specialty. It appealed to the committee as wise to permit the caption of this section, therefore, to remain until the specialty has attained such momentum as to require a section of its own, or until those who specialize in this line have decided that that part of the caption might well be dropped. The committee could see no particular reason for reversing the words obstetrics and gynecology in the caption of the last named section, and felt that it should not inhibit the officers of this section, or the Council on Scientific Work, by prescribing in the By-Laws any particular method of building up a program for the section.

(3) That the councilors should be nominated by the districts which they serve, and restricted to one term of office. There is a distinct difference of opinion in the committee in regard to this matter, and at least one member thereof has reserved the privilege of contending against the decision of the committee in this respect. The majority of the committee decided to continue the present plan of organ-

ization throughout, and considered this as an important item therein. The councilor has always been looked upon as an officer of the State Association and not of the district that he serves, and his function as a judge on the bench has always been considered as of the greatest importance. Perhaps it is a mistake to assign to him the work of organizing, and it may be that there should be a judicial council and that the Board of Councilors should function merely as organizers, but that would be a reversal of the plan of organization to a certain extent and would be going much further than the committee feels we should go at this time. Indeed, should the function of the councilors be confined to organization work, there would still be a grave question as to whether they should be chosen by and represent their districts or be chosen by the House of Delegates and represent the State Medical Association. It is believed that the strongest link in our organization chain is the intimate and yet independent relationship of the councilor to the county societies of his district. It is felt that if the councilor be elected by or upon the nomination of representatives of his district, no matter upon what basis, an element of partisan politics will be injected in the district that had better be kept out. It is rarely, indeed, that the House of Delegates refuses to elect councilors upon the nomination of the delegates from their respective districts. Any divergence of opinion within the district would seem to indicate the wisdom of finally referring the matter to the House of Delegates, in any instance.

It is not feasible to discuss the numerous changes made in the revised version of the Constitution and By-Laws submitted herewith. It may be desirable, however, to refer to a few of them.

Beyond a few changes which have long appealed to those in authority as being necessary, the principal demand has always been for coördination and clarity. The Board of Councilors has long complained that numerous problems have come up for decision which could not be decided by reference to any provisions of the laws of the Association alone, and that too much has had to be left to the judgment of the councilor; also, that many of the disagreements that have come to the councilor for settlement have been incident to discrepancies and insufficiencies of our laws. The committee has striven manfully to produce a complete instrument, one that will leave as little as possible to surmise or to the judgment of the individual. For that reason, the instrument submitted is rather lengthy, but it is believed that it is as brief and as concise as it can well be and meets the criticisms that have made a revision desirable if not necessary. Even so, it will be found that many paragraphs will fail to carry full and complete meaning in themselves, reference to other paragraphs being necessary to complete the story. This must be remembered when studying any constitution and by-laws. The committee believes that every provision of the By-Laws has been justified in the Constitution, and that the latter has laid the predicate for any developments in the nature of by-laws that may be necessary in the immediate future. No distinct departures from the present plan of organization have been made, but expansion along some lines heretofore considered in contravention of the Constitution, have been provided for.

The responsibility of the Board of Trustees for the financial management of the Association has been perpetuated, but provisions have been made whereby the Board of Trustees will necessarily make allowances for the continuation of the activities of the Association as directed by the House of Delegates. This will be accomplished through a tentative budget which the Board of Trustees will make up after consultation with the heads of departments, and which will be laid before the House of Delegates for discussion and decision. It was not deemed wise to throw the burden of detailed financial management of the Association on the House of Delegates, for many and obvious reasons. Made up as it is principally of delegates from county societies of the State, the membership of the House of Delegates would hardly be in a position to formulate judgment, particularly when there is little time for consideration, upon many financial matters that must be decided by some one. No financial organization in the world of commerce would consider for a moment the management of its business affairs in any such manner. There is always a board of directors, which board, however, is governed by officers elected by stockholders and instructed by them, or who at least know what is wanted and elect accordingly. It is believed that the provisions pertaining to the business management of the Association are as responsive to the demands of the organization as it is possible to make them and yet insure business success, and remain within the bounds of the State laws governing corporations.

The Board of Councilors has been definitely given authority to handle finally and conclusively all matters of ethics and organization, and yet provisions have been made for responsibility to the Association and for safeguarding the interests of the individual and of the county society.

The functions and scope of action of county societies have been carefully and extensively considered. The chapter pertaining to county societies is perhaps the most interesting and constructive piece of work the committee has done. It is believed that a county society could utilize this chapter as both constitution and by-laws, by merely adding a few paragraphs setting out the name of the society, time and place of meeting, and a few items of that sort. The committee feels strongly that if county societies will follow the spirit and the letter of this chapter they will avoid much of the unfortunate controversy that has heretofore arisen. Of particular note is the section pertaining to the trial of members for breach of ethics or of the laws of the organization. It appears at first reading to be a little complicated, but if it is followed word by word in the trial of members it will be found easy and practicable. A member of the committee was concerned in the development of this system for one of our county societies, and he assures us that it has since proven exceedingly satisfactory in operation. The effort has been made to provide in this chapter for a complete routine but with sufficient option to meet the requirements of the component county societies.

The matter of incorporating county societies under the State laws, for the purpose of avoiding suit against individual members, has heretofore given much trouble. There has been much diversity of opinion as to the effect upon the relationship between component county societies and the State Medical Association, over the act of incorporation under the laws of the State. We have carefully provided for all contingencies likely to arise in this connection, and have even included a proviso that where the State laws and the organization laws conflict, the State laws shall take precedence, except where such action would serve to disassociate the chartered society from the State Association. The application for incorporation is that which has been used by most of our chartered county societies, but it will be noted that societies chartered under different articles may continue to operate thereunder, provided the said articles do not require action incompatible with the Constitution and By-Laws of the State Medical Association.

The division of the State into councilor districts has been incorporated in the by-laws, as at present existing, and hereafter the matter of changing a county from one district to another will be facilitated.

Of special interest will be the decision of the committee to eliminate the present so-called Committee on Legislation and Public Instruction and substitute therefor a group known as the "Executive Council." The functions of this Council remain practically the same but its scope and the personnel of its membership have both been extended somewhat. During the past year the President has found it necessary on more than one occasion to assemble the Board of Trustees, the Board of Councilors and the Council on Legislation and Public Instruction, together with certain of the officers of the Association, for decision as to policy and prosecution of the publicity campaign. It has appealed to many as essential that such a conference be held occasionally, for this and other purposes, and so this group has been denominated the "Executive Council" and placed at the disposal of the President, who is throughout the Constitution and By-Laws denominated as not only the head of the profession in the State but the coördinating agent of the Association. There is a difference of opinion in the committee, in this connection, as to whether there should be a Committee on Legislation separate and apart from the Council. This matter may be covered in a supplementary report, but for the present the committee deems it advisable that there be a Legislative Committee, subject at all times to the direction of the Executive Council and the House of Delegates. It will be noted that the Executive Council is strictly an *ex-officio* group, including those elements in the organization which have to do with its several purposes, one of which is legislative. Of course, the Executive Council could appoint a legislative committee from its own ranks, but in this manner only those who have been elected or selected because of their adaptability to some other work would be selected for this work, and many of our best legislative workers would pass out of office and be lost to the Association for this work if they must engage therein upon an *ex-officio* basis.

The revised version of the Constitution and By-Laws prepared by the committee is submitted as follows:

CONSTITUTION.

Article I.—Name and Purposes.

Sec. 1. The name and title of this organization shall be the State Medical Association of Texas.

Sec. 2. The purposes of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Texas and to unite with similar associations of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members, and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

Article II.—Composition of the Association.

Sec. 1. This Association shall consist of the several component county medical societies, duly and constitutionally chartered, and its membership shall comprise only those members of said component county societies who have been duly elected; who have been reported to the office of the State Secretary as members, and for whom the State Secretary has received the annual per capita assessment, made in accordance with the By-Laws of the Association.

Sec. 2. Only white physicians legally registered to practice medicine in Texas, who do not hold themselves out as practitioners of sectarian medicine, and who subscribe to the Principles of Ethics of the American Medical Association, shall be admitted to membership; except that white medical officers of the Federal Government, and teachers in medical "Class A" schools, who do not practice medicine and who are not required to register under the Medical Practice Act of Texas, and who are for the time *bona fide* residents of the State of Texas, shall be eligible to membership.

Sec. 3. Any distinguished physician not a resident of this State, or any distinguished scientist not a physician and who is not eligible to membership in this Association, may become a "Guest" during any Annual Session on invitation of the President of this Association, and shall be accorded the privilege of participating in all of the scientific work and social activities for that session.

Sec. 4. Members of other state medical associations, the families of members of physicians entitled to register in any capacity at the annual sessions of this Association, or other reputable citizens who may be invited to attend any of the meetings of the Association, may be registered as "Visitors," and as such shall be privileged to participate in the several social and general activities of the session.

Article III.—Officers.

Sec. 1. The officers of this Association shall be a President, a President-Elect, three Vice-Presidents, a Secretary, a Treasurer, five Trustees, a Councilor for each Councilor District, and four members of the Council on Medical Defense.

Sec. 2. The President, President-Elect and Vice-Presidents, shall be elected for terms of one year each. The Secretary, Treasurer and Councilors, shall be elected for terms of three years each. The Trustees shall be elected for terms of five years each. The members of the Council on Medical Defense shall be elected for terms of four years each, in accordance with this Constitution and By-Laws. All officers shall serve until their successors are elected and installed.

Sec. 3. The officers of this Association shall be elected by the House of Delegates on the morning of the last day of the Annual Session, and no person shall be elected to any such office who is not in attendance on that Annual Session, and who has not been a member of the Association for the preceding two years.

Article IV.—Trustees.

Sec. 1. The business affairs of the Association shall be managed by a Board of Trustees, comprising five members, elected in accordance with this Constitution and By-Laws. All funds of the Association shall be subject to the exclusive control of the Board of Trustees, except as otherwise provided in this Constitution and By-Laws. The Board of Trustees shall decide all questions not specifically delegated to other authorities by this Constitution and By-Laws. It shall, in general, serve as a Board of Directors, within the meaning of the corporate laws of the State of Texas.

ARTICLE V.—BOARD OF COUNCILORS.

Sec. 1. A Board of Councilors, consisting of one member from each councilor district, is hereby constituted. All questions pertaining to medical ethics shall be referred to this Board, through channels and as provided for in this Constitution and By-Laws. The Board of Councilors shall have general supervision of component county societies, and district societies, and questions pertaining to such shall be referred to the Board, through channels, as provided for in this Constitution and By-Laws.

ARTICLE VI.—COUNCIL ON MEDICAL DEFENSE.

Sec. 1. The Council on Medical Defense shall consist of four members, elected as provided for herein. The Secretary of the State Association shall be *ex-officio* a member of this council, and shall act as its secretary. This council shall have the authority to provide rules and regulations for the conduct of its own affairs, provided they do not conflict with any provisions of the Constitution and By-Laws of the State Association.

Sec. 2. The Council on Medical Defense, under the general supervision of the Board of Trustees, shall have charge of the legal affairs of the Association. It shall have exclusive charge of the defense of members of the Association who are charged with medical malpractice who desire its services, and who are, in the opinion of the Council on Medical Defense, entitled thereto.

ARTICLE VII.—SESSIONS AND MEETINGS.

Sec. 1. The Association shall hold an Annual Session, during which there shall be held not less than one general meeting daily, which shall be open to all registered members and guests.

Sec. 2. The time and place for holding each Annual Session shall be fixed by the House of Delegates at the preceding annual session, or by the executive council, and the said executive council shall have the authority to change both the time and place of meeting, or either, to meet unforeseen emergencies, as hereinafter provided.

Sec. 3. Special sessions of either the Association or the House of Delegates, or special meetings of either, shall be called by the President, at his discretion or on petition of thirty delegates.

ARTICLE VIII.—REFERENDUM.

Sec. 1. The general meeting of the Association may by a two-thirds vote of members present, order a referendum on any question pending before the House of Delegates.

Sec. 2. The House of Delegates may by a two-thirds vote submit any question to the general meeting for final decision.

Sec. 3. The House of Delegates shall submit to the general meeting for final decision any question which has been ordered in accordance with Section 1 and Section 2, of this article.

Sec. 4. Any question brought before the general meeting by operation of this article shall be decided by majority vote of members present.

ARTICLE IX.—HOUSE OF DELEGATES.

Sec. 1. The House of Delegates shall constitute the legislative body of the Association. The membership of the House of Delegates shall consist of (1) delegates, elected in accordance with this Constitution and By-Laws, and *ex-officio* (2), the President, Vice-President, Secretary and Treasurer; (3) Councilors; (4) Trustees, and (5) members of the Council on Medical Defense.

Sec. 2. The House of Delegates shall meet at the time of the annual session of the Association, in accordance with the By-Laws of the Association, and at such other times as may be provided for by the said By-Laws. A majority of the delegates registered at the annual session shall constitute a quorum.

ARTICLE X.—COMPONENT COUNTY SOCIETIES.

Sec. 1. Component county societies shall be organized under the direction of the Board of Councilors, where the best interests of the profession shall indicate. Charters shall be issued to said component county societies by the State Secretary, countersigned by the President of the Association, upon the direction of the Board of Councilors.

Sec. 2. When so organized, component county societies shall have general jurisdiction over the medical affairs within their respective territories, in accordance with the provisions of this Constitution and By-Laws.

ARTICLE XI.—COUNCILOR DISTRICTS AND DISTRICT SOCIETIES.

Sec. 1. The House of Delegates shall divide the State into appropriate councilor districts.

Sec. 2. The House of Delegates shall provide for the organization and chartering of such district societies as will promote the best interests of the profession. Such societies shall be composed only of members of component county societies of their respective councilor districts, and shall be exclusively scientific and educational in character.

ARTICLE XII.—SCIENTIFIC SECTIONS.

Sec. 1. The House of Delegates shall divide the scientific work of the Association into appropriate sections, and provide for their management.

ARTICLE XIII.—FINANCE.

Sec. 1. The finances of the Association shall be in the general charge and keeping and under the general management of the Board of Trustees, except as may be provided otherwise by this Constitution and By-Laws.

Sec. 2. The House of Delegates shall provide for an equal per capita assessment of component county societies, and for the proper distribution of the amount so raised into the several funds of the Association, as established by the Board of Trustees or the House of Delegates.

Sec. 3. The Association, through its Board of Trustees, shall invest its money in such manner as may seem wise, appropriating the profits accruing therefrom to the several funds of the Association.

Sec. 4. The Trustees shall have the authority to receive volunteer contributions, for specific or general purposes, and shall dispose of said contributions in accordance with the terms of the donors, or its own judgment in the instance there are no such terms.

Sec. 5. The Association, through its Board of Trustees, shall have the authority to disburse its funds, in accordance with this Constitution and By-Laws. All appropriations made by the House of Delegates, or acts requiring the expenditure of funds, shall be approved by the Board of Trustees before becoming effective.

ARTICLE XIV.—INCORPORATION.

Sec. 1. The Association shall have a common seal with power to break, change or renew the same at pleasure.

Sec. 2. The Association shall have the authority to take out papers of incorporation under the corporate laws of the State of Texas.

Sec. 3. Component county societies shall have the authority to take out papers of incorporation, provided that said incorporation does not remove the said component county societies from the jurisdiction of this Association.

Sec. 4. The Association year shall be from January 1 to December 31, both dates inclusive. Membership shall be for the Association year. The fiscal year shall be established by the Board of Trustees.

ARTICLE XV.—AMENDMENTS.

Sec. 1. The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at any annual session, provided that such amendment shall have been presented in open meeting at the previous annual session, published in the official organ of the Association, and sent officially to each component county society at least two months before the session at which final action is to be taken.

Sec. 2. A complete revision of this Constitution may be accomplished by a two-thirds vote of the House of Delegates at any annual session, provided that such complete revision shall have been adopted in the preceding session, and the revised version shall have been published in the TEXAS STATE JOURNAL OF MEDICINE not later than approximately three months prior to the annual session in which the final vote thereon is to be taken.

BY-LAWS.

CHAPTER I.—MEMBERSHIP.

Sec. 1. The qualifications and requirements for membership shall be as stated in Article II, Sections 1 and 2, of the Constitution of this Association.

Sec. 2. All members of component county societies shall, by virtue of their membership, be members of this Association, when duly reported to the State Secretary by the secretaries of their respective county societies. The name of a physician on the properly certified roster of members of a component county society which has paid its annual assessment, shall be *prima facie* evidence of membership in this Association.

Sec. 3. Members who are under sentence of suspension or expulsion from a component county society, or whose names have been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Association, and they shall not be permitted to take part in any of its proceedings until they have been relieved of such disability. Any member dropped from the rolls of a component county society for non-payment of dues, is to be considered as coming within the provisions of this section.

Sec. 4. Secretaries of component county societies shall promptly notify the State Secretary of the relief of any disability, suffered by any of their members. Said notification shall be in writing, and the State Secretary shall in like manner acknowledge receipt of such notice, informing the county society's secretary of the steps that have been taken to correct the record of such members, in his office.

Sec. 5. A member in attendance at the annual session shall verify his name on the certified roster of the component county society of which he is a member, when he shall receive a badge, which shall be evidence of his right to all the privileges of membership during that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provision of this section.

CHAPTER II.—OFFICERS.

Sec. 1. The officers of the Association shall be as stated in Article III, Section 1, of the Constitution of this Association.

Sec. 2. The President shall be the real head of the medical profession of the State during his term of office. He shall, as far as practicable, visit the various sections of the State in the interest of the Association and its component societies, and the public health, in co-operation with the councilors of the State Association. In general, the President shall perform such other duties as custom and parliamentary usage may require. He shall preside at all meetings of the Association and of the House of Delegates, deliver an address to the Association during its annual session, and appoint all committees and fill all vacancies in office not otherwise provided for in this Constitution and By-Laws. He shall co-operate with officers, committees and councils of the Association, in the performance of their several duties, and shall endeavor to so co-ordinate the several activities of the Association, through the constituted agencies, that the maximum good results may be attained during his term of office. The trustees shall include in the annual budget a reasonable sum to cover the expenses of the President in complying with these requirements.

Sec. 3. The President-Elect shall assist the President in the performance of his duties, and shall seek and be extended, the opportunity to thoroughly familiarize himself with the duties of the office of President, which office he will automatically fill at the expiration of his term as President-Elect. On the death or removal of the President, the President-Elect shall within ten days assemble the Board of Councilors for the purpose of selecting his successor in office, which selection shall be from the group of regularly elected vice-presidents. In the interim, and in the event no vice-president is available, and the Chairman of the Board of Councilors shall so certify, the President-Elect shall assume the office of President..

Sec. 4. The Vice-Presidents shall have equal rank. They shall assist the President in the performance of his duties, and shall perform such services as he may require of them in carrying out the policies of his administration. In the event of the death or removal of the President, one of the vice-presidents shall be selected by the Board of Councilors to fill out the unexpired term. The Vice-President thus selected shall, when officially notified by the Chairman of the Board of Councilors, assume the office of President.

Sec. 5.—The Secretary shall record the proceedings of the House of Delegates and the general meetings during annual and special sessions, and shall see that the various activities of the Association are made of record in his office. Under the direction of the Board of Trustees, he shall employ the necessary assistants in the performance of these and his other duties, and it shall be lawful for him to assume other duties and titles not in contravention of this Constitution and By-Laws, as directed by the House of Delegates or the Board of Trustees. He shall receive, receipt for and make of record in his office, all moneys and property coming into the possession of the Association. He shall promptly pass to the Treasurer all moneys thus received, taking his receipt therefor, and make such disposition of the property and other things of value thus received as may be directed by the Board of Trustees. He shall expend the funds of the Association from a working account established and replenished by funds drawn from the Treasury on a voucher system approved by the Trustees. He shall, in conjunction with the Presi-

dent of the Association and under the advice of the Council on Scientific Work, prepare the program for the annual session, causing the same to be published in the TEXAS STATE JOURNAL OF MEDICINE approximately one month in advance of the convening of the annual session. He shall edit and prepare the minutes of the general meetings and the House of Delegates of annual and special sessions, and cause the same to be published in the first available numbers of the TEXAS STATE JOURNAL OF MEDICINE following adjournment of the said sessions. He shall, in conjunction with the President and the local arrangements committee, provide for the accommodation of annual and special sessions of the Association, and for the recognition and registration of members, delegates, visitors and guests attending such sessions. He shall maintain in his office records and data pertaining to the medical profession of Texas, with particular reference to membership in the State Association, and the ethical and moral status of physicians, and the same shall be available to the proper officials of the State Association, of component county societies, and the American Medical Association. These records shall not be made public except by and with the consent of the individuals concerned or upon direct orders of the Board of Councilors of the State Association. The State Secretary shall use the facilities of his office so far as may be practicable and so far as may be required, in assisting the Board of Trustees, the Board of Councilors and the Council on Medical Defense, and the officers and committees of the Association, in the performance of their respective duties. He shall, under the direction of the President, or the proper officers or committees of the Association, conduct its official correspondence. He shall notify officers of their election, committees of their appointment and members of such meetings as they may be expected to attend. He shall annually make report to the House of Delegates, covering in brief the transactions of his office, and shall make such reports to the Board of Trustees, the Board of Councilors and the Council on Medical Defense, as may be required of him by these bodies. He shall be bonded to the extent and in the manner required of him by the Board of Trustees, and in favor of the Board of Trustees, for the faithful performance of his duties as herein set forth and as may hereafter properly be required of him.

Section 6. The Treasurer shall be the custodian of all moneys, securities, deeds and properties, belonging to the Association, which may properly come into his possession, and shall hold the same subject to the direction and disposition of the Board of Trustees. He shall give to the Board of Trustees a suitable bond for the faithful performance of his trust.

Sec. 7. The duties of the trustees, councilors and members of the Council on Medical Defense, shall be as stated in Chapters III, IV and V, respectively, of these By-Laws.

CHAPTER III.—BOARD OF TRUSTEES.

Sec. 1. The Board of Trustees shall have charge of all properties and moneys of the Association, and shall manage its financial affairs after the manner and with the usual authority of boards of directors of corporations under the laws of the State of Texas. At the first meeting of the Board following adjournment of the annual session, it shall organize by electing a chairman and a secretary, and the chairman shall appoint such committees as may seem necessary or desirable. It shall be the duty of the Board of Trustees to provide for and superintend the publication of the TEXAS STATE JOURNAL OF MEDICINE, and all proceedings, transactions and memoirs of the Association. It shall have full discretionary power to omit from the TEXAS STATE JOURNAL OF MEDICINE, in part or in whole, or to publish in abstract any paper that may be referred to it by any of the scientific sections. It shall appoint a general manager and editor for the JOURNAL, which two positions may be held by one person, and such assistants as may be necessary, and shall determine their salaries and the terms and conditions of their employment. All resolutions or recommendations of the House of Delegates pertaining to the expenditure of money must be approved by the Board of Trustees before the same shall become effective. During the annual sessions of the Association the Board shall hold meetings as often as may be deemed necessary by the chairman, and all matters referred to it by the House of Delegates shall be reported on within twenty-four hours, if so requested by the House. The Board of Trustees shall have the accounts of the Secretary, Treasurer and of the JOURNAL office, audited annually or oftener, if deemed necessary, and shall make an annual report on the same to the House of Delegates, which report shall also specify the character and cost of all the publications of the Association during the year, the amount and character of properties belonging to the Association, and a tentative budget covering the various activities and enterprises of the Association for the next fiscal year. Any vacancy in the office of Secretary or Treasurer, on account of death or for any other reason, shall be filled by the Board of Trustees until the next annual session of the House of Delegates. The Board of Trustees shall fix the salary of the Secretary and Treasurer. Regular meetings of the Board shall be held immediately following adjournment of the annual session. Special meetings of the Board may be called at any time by the Chairman, or by three members of the Board, by personal notice, or mailing a written or printed notice to the last known address of each trustee, at least five days before such meeting is to be held. The chairman shall convene the Board upon request of the President of the Association, and shall lay before the Board any communication from the President, as requested. Three members of the Board shall constitute a quorum.

CHAPTER IV.—COUNCILORS.

Sec. 1. The House of Delegates shall elect a councilor for each councilor district. The term of office of councilors shall be three years, and their election shall be arranged in such manner that one-third, as nearly as possible, shall be elected each year. Vacancies in the office of councilors shall be filled by the President, for unexpired terms.

Sec. 2. A vice-councilor for each district may be appointed by the Board of Councilors. When so appointed, vice-councilors shall assist councilors in the performance of their duties and shall have the authority of councilors only when acting in their official capacity and in the place of the councilor.

Sec. 3. It shall be the duty of each councilor to organize county societies in his own district whenever opportunity may offer and the best interests of the profession may require; in a general way advise and supervise county societies in the conduct of the affairs of medicine in their respective jurisdictions; in a similar manner organize and in general supervise the district society of his district in accordance with the provisions of this Constitution and By-Laws; receive and, if possible, decide matters appealed to the councilor from the decision of component county societies; promptly pass to the Board of Councilors appeals that cannot be de-

cided by him; adjust, if possible, complaints made by members of component county societies or by physicians in the district who are not members and who feel that they have grievances against a component county society; co-operate with the officers, councils and committees of the Association in the performance of their respective duties when called upon, and particularly insofar as they may pertain to his district. The councilor shall be the organizer, peace-maker and censor for his district. He shall visit each county society at least once each year, and the Board of Trustees shall include in the budget for the year a reasonable amount for defraying the expenses of such visits. It shall be lawful for the money thus set aside to be used in defraying the expenses of vice-councilors when in the performance of their duties. The State Secretary shall dispense the money appropriated for the use of the Board of Councilors, upon the orders of the Chairman of the Board.

Sec. 4. The Board of Councilors shall consist of the councilors for the several councilor districts. It shall elect its own administrative officers, including a chairman, a vice-chairman and a secretary, and shall provide its own rules of procedure; provided the said rules of procedure do not conflict with this Constitution and By-Laws, the Constitution and By-Laws of the American Medical Association, or the Principles of Ethics of the American Medical Association.

Sec. 5. The Board of Councilors shall authorize the issue of charters to county and district societies and, through its chairman, shall direct the Secretary of the State Association to issue such charters, as provided for in Section 1, Chapter XI, of these By-Laws.

Sec. 6. The Board of Councilors shall have the authority to revoke the charter of a county society for (1) failure or refusal to comply with the provisions of this Constitution and By-Laws; (2) failure to pay the per capita assessment of at least five members; (3) failure or refusal to exact of its members conformity with the Principles of Ethics of the American Medical Association; (4) failure to enforce the rule against fee splitting, as set out in Section 15, Chapter XI, of these By-Laws, and (5) it shall further have authority to revoke the charter of any component county society or any district society which, in the estimation of the Board, is antagonistic to and in conflict with the letter and spirit of this Constitution and By-Laws.

Sec. 7. The Board of Councilors shall constitute the Board of Censors of the Association. It shall hear complaints and consider questions involving the rights and standing of members of component county societies, whether in relation to each other, to component county societies or this Association. It shall receive appeals of individual members from the decisions of component county societies, through the councilors, or appeals of component county societies from decisions of individual councilors. It shall require that all such appeals be made in writing, reciting definitely and in detail, and in chronological order, the circumstances existing between the time of beginning of proceedings to the time of appeal, and setting out the reasons why the decision or decisions complained of should be set aside. Such complaints, having been made in due form, will be considered by the Board of Councilors as nearly as possible after the procedures of courts of appeal under the civil and criminal laws of the State of Texas, but the Council shall have authority to summon and hear witnesses, insofar as such authority may be extended by the State Association. Both sides to any controversy coming before the Board of Councilors under the provisions of this section, shall be entitled to legal counsel, so long as said counsel shall respect and obey the rules of procedure established by the Board. The decision of the Board of Councilors in all such cases shall be final, except that a member or a component county society or a district society may appeal to the Judicial Council of the American Medical Association in accordance with the by-laws of that organization. The Board of Councilors shall hold such meetings as it may deem necessary, provided that at least one meeting is held during the annual session of the Association, before which meeting any physician who has a grievance proper to be heard by the Board, shall be allowed to appear.

Sec. 8. All questions of ethics, complaints of members against each other or component county societies or district societies, coming before the House of Delegates, shall be referred to the Board of Councilors without debate. The Board of Councilors will make report to the House of Delegates on all such matters so referred, as promptly as circumstances will permit.

Sec. 9. The Board of Councilors shall cause to be prepared and, through its chairman or secretary, presented to the House of Delegates each year, a comprehensive report of the condition of the profession throughout the State, and the state of organization of component county societies, district societies and the State Association.

Chapter V.—Medical Defense.

Sec. 1. The Council on Medical Defense shall have the exclusive right to dispense the special fund set aside by the by-laws for medical defense (Chapter XIV). It shall devote these funds (1) to the defense of the members in good standing of the State Medical Association when threatened by medical malpractice suits; (2) to the procurement of legal services and advice for the State Medical Association, and (3) to the enforcement of the Medical Practice Act of this State, all in accordance with the provisions of this Constitution and By-Laws. This fund may be diverted to other purposes than this upon the unanimous agreement of the Council on Medical Defense and the Board of Trustees.

Sec. 2. It shall be the duty of the members of the Council on Medical Defense, severally or collectively, to investigate and defend all damage suits threatened or filed against the State Association, or any of its authorized agents; to investigate all claims of malpractice made against members; to take full charge of cases which, after investigation, they shall decide to be proper cases for defense and to defend such cases to the end and pay all costs of such defense; but they shall not pay, or obligate the Council on Medical Defense or the State Association to pay, any judgment rendered against any member upon the final determination of any such case. They shall be empowered to contract with such agents or attorneys as they may deem necessary, in the investigation of any case or the defense of any member, but they shall always consult the defendants in such cases before employing attorneys. In the instance a member seeking the services of the Council on Medical Defense carries an indemnity policy, it shall rest with the Council on Medical Defense whether the company in which the said member is insured shall be required to exercise exclusive control in the defense of the case or whether the Council shall join in the control thereof. In the instance it shall be decided that the said insurance company shall exercise exclusive control, the Council shall not assume any part of the financial burden of the case, but in any instance, the

council shall extend all possible moral and advisory support. The Council on Medical Defense shall have the authority to assume such portion of the costs of any such case proper to be defended by the Association under this chapter of the by-laws, as it may see fit, in proportion to the control it is permitted to exercise in the conduct of the case.

Sec. 3. The defense of members threatened with medical malpractice suits, as contemplated in these by-laws, shall be extended only to members of the Association who are in good standing at the time application for defense is made, and who were in good standing in the Association at the time the alleged injury or damage causing the litigation occurred. Any member seeking defense under the terms of this chapter of the by-laws, who was in bad standing because of dereliction of duty on the part of the Association or its agents, and through no fault of his own, may be defended within the discretion of the Council on Medical Defense.

Sec. 4. Any member of the Association threatened with suit for malpractice, who desires the assistance of the Council on Medical Defense, shall immediately that he becomes aware of the threat to sue, so notify the secretary of the Council on Medical Defense, or any member thereof, or the general attorney of the Association, in the instance there is not sufficient time to communicate with a member of the Council. The secretary of the Council on Medical Defense, or any member or the general attorney, so notified, shall proceed immediately to investigate the circumstances reported, in the manner and after the procedure to be set out by the Council on Medical Defense, securing for the consideration of the said Council full data and statement of facts and circumstances surrounding the filing of the suit or suits for its consideration, and for the permanent files. The member sued or threatened with suit, and under investigation by the Council on Medical Defense, shall be consulted and have the full confidence of the Council in all transactions connected with any such investigations. The Council on Medical Defense shall have the authority to require of a county society, or the president thereof, the appointment of a committee of investigation in any such case, and it may direct the said committee so appointed to report to the Council on Medical Defense and not to the society from which it is appointed.

Chapter VI—Sessions and Meetings.

Section 1. The Association shall hold an annual session at such time and place as may be established by the House of Delegates or the Board of Trustees, in accordance with the provisions of this Constitution and By-Laws. Special sessions may be held at any time or place, upon call of the president, at his discretion or upon petition of thirty Delegates, as provided for in Section 3, Article VII, of the Constitution of the Association.

Sec. 2. The annual sessions of the Association shall consist of general meetings, meetings of the House of Delegates and meetings of the Scientific Sections. There shall be one general meeting each day; the House of Delegates may meet at its discretion, and the Scientific Sections shall meet in accordance with the published program and this Constitution and By-Laws. Special sessions shall be held in accordance with the provisions of the call responsible for their convening.

Sec. 3. The order of exercises and meetings as set forth in the official program, and published, shall be followed from day to day until completed, unless otherwise directed by vote of a general meeting.

Sec. 4. General meetings of the Association shall be held in accordance with Article VII of the Constitution. One hundred members shall constitute a quorum. All registered members and guests shall have equal rights to participate in the proceedings and discussions, and, except guests, to vote on pending questions. The president shall deliver his Annual Address at a general meeting.

Sec. 5. The general meeting shall have authority to order referendum vote in accordance with Article VIII of the Constitution, and receive and act upon all referred questions; and it may recommend to the House of Delegates the creation of commissions and committees for scientific investigation and research or for other purposes.

Sec. 6. During the time of a general meeting, all social and other scientific activities of the Association shall cease, regardless of provisions of the program or contingencies of any sort.

Sec. 7. The House of Delegates shall meet at such time and place as may be decided upon by its own act; but such meetings shall be so conducted as to interfere as little as possible with the meetings of the Scientific Sections. It shall be lawful for the House of Delegates to hold its first meeting of the Annual Session on the day preceding the convening of the said Annual Session.

Sec. 8. The Scientific Sections shall meet in accordance with the official program, and under no circumstances will their meetings be so extended as to interfere with a General Meeting.

Chapter VII—House of Delegates.

Section 1. Unless otherwise directed by resolution adopted during a preceding meeting, the House of Delegates shall hold its first meeting on the first day of the Annual Session, beginning at 1:30 p. m. It shall be lawful for the House of Delegates to meet in regular session on the day preceding the convening of the Annual Session, or in called session, as provided in these By-Laws. It shall meet from time to time throughout the Annual Session as may be necessary, avoiding as far as possible conflict with the meetings of the Scientific Sections, and with other activities of the Association. It shall recess or adjourn for the convening of a General Meeting, or it may continue its sessions in conjunction with a General Meeting. It may remain in session following final adjournment of the Annual Session, for the purpose of completing the business before it. The order of business of the House of Delegates shall be arranged in advance of its meetings, and, if possible, published to the members prior to its convening. It shall organize and function in accordance with Article IX of the Constitution of the Association.

Sec. 2. Component county societies which have made their annual reports to the State Secretary, in accordance with this Constitution and By-Laws, which have on their rolls at least five members, and which have paid their annual assessments to the State Secretary, shall be entitled to representation in the House of Delegates to the extent of one delegate for the first one hundred members or less, and one additional delegate for each additional one hundred members or fraction thereof. Such delegates shall be elected by their respective component county societies, in accordance with Section 2, Chapter XI of these By-Laws.

Sec. 3. A majority of the delegates and ex-officio members of the House of Delegates registered at the Annual Session, shall constitute a quorum. The presence of a quorum shall be determined by the secretary following a call of the roll, as submitted

by the Reference Committee on Credentials, and shall be established by announcement of the president.

Sec. 4. Delegates and ex-officio members of the House of Delegates shall be seated by the Reference Committee upon presentation of satisfactory evidence of their right to membership in the House of Delegates, in accordance with this Constitution and By-Laws. Delegates shall present credentials signed by the president and secretary of their respective societies, to the effect that they have been duly elected as such. Alternate delegates shall present the credentials of their principals, duly signed over to them by the said principals. Ex-officio members shall qualify by establishing their identity as officials of the Association who are entitled to membership in the House of Delegates.

Sec. 5. The House of Delegates shall have full authority to decide the right of any claimant to membership therein, provided no provisions of this Constitution and By-Laws are violated in the decision. Any member of the Association claiming a seat in the House of Delegates may appeal to the House from the adverse decision of the Reference Committee on Credentials.

Sec. 6. A delegate once seated by the House of Delegates shall be relieved only by vote of the House of Delegates, and in the instance it is necessary for him to leave the city in which the meeting is being held. When so relieved, his alternate, or another alternate elected by his society, may be seated in his stead, by complying with the requirements of these By-Laws pertaining to the seating of delegates.

Sec. 7. The House of Delegates shall have authority to appoint committees and commissions not mentioned in this Constitution and By-Laws, and such officials as may be necessary for the conduct of its own affairs and not prohibited by this Constitution and By-Laws. It shall have the authority to establish rules of conduct, but in general and in all instances not covered by this Constitution and By-Laws, or its own special rules, Robert's Rules of Order shall govern.

Sec. 8. All officers, councils and committees permitted to report to the House of Delegates, shall be heard as set out in the order of business for the House, and all such reports shall be referred to appropriate reference committees of the House without debate, except as provided by Section 9 of this Chapter of the By-Laws. All questions pertaining to medical ethics shall be referred to the Board of Councilors without debate. Such questions so referred shall be debated and decided by the House of Delegates only upon recommendation of the Board of Councilors, and in executive session. All matters pertaining to appropriation of funds shall be referred to the Board of Trustees, with or without recommendation, directly or following submission to a Reference Committee.

Sec. 9. Unanimous consent shall be required for the introduction of new business at the last meeting of the House of Delegates during the Annual Session, except when presented by the Board of Trustees, the Board of Councilors, the Executive Council, or at the instance of any of the Scientific Sections. All new business so presented shall require three-fourths affirmative vote for adoption.

Sec. 10. The House of Delegates shall, as promptly as possible, decide questions referred to it by a General Meeting, and may refer questions to a General Meeting for decision, in accordance with Article VIII of the Constitution of the Association.

Sec 11. All meetings of the House of Delegates shall be open to members of the Association, but the House of Delegates shall have authority to exclude all except members of the Association at any time. It shall require of all present, whether members of the House or not, the same decorum it requires of its own members. Executive sessions, when ordered, shall serve to exclude only those who are not members or guests of the Association, and all who remain in attendance on such meetings shall be required to abide by the established rules of the House pertaining to such sessions, or special rules adopted at the time of such sessions.

Chapter VIII—Elections.

Section 1. The House of Delegates shall elect the officers of the Association, and delegates to the American Medical Association, and select the place for and fix the time of the following Annual Session, on the morning of the last day of the Annual Session. Nominations shall be from the floor of the House, and by members of the House. Nominating speeches shall not exceed five minutes in duration, and seconding speeches shall not exceed two minutes. No person known to have solicited votes for or to have sought any office within the gift of the Association, shall be eligible to nomination therefor.

Sec. 2. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect. When there are three or more nominees, the one receiving the least number of votes on each ballot shall be dropped, until a majority vote is received by one of the said nominees. When there is only one nomination, vote may be by acclamation.

Sec. 3. Delegates and alternate delegates to the American Medical Association shall be elected in accordance with the By-Laws of that organization.

Chapter IX—Committees.

Section 1. In addition to the officers named in Article III of the Constitution, the activities of the Association shall be carried on by such committees as may be established by the House of Delegates or the president, in accordance with this Constitution and By-Laws. Committees shall be classified as follows: (a) Standing Committees; (b) Special Committees; (c) Reference Committees, and (d) Special Delegates.

Sec. 2. All committees shall be appointed by the president, unless otherwise provided for in these By-Laws.

Sec 3. (a) Standing Committees of the Association shall be as follows: (1) Executive Council; (2) Council on Scientific Work; (3) Committee on Legislation; (4) Committee on Collection and Preservation of Records; (5) Committee on Transportation; (6) Committee on Arrangements for the Annual Session; (7) Committee on Memorial Exercises, and (8) Committee on Publicity.

Sec. 4. (a-1.) The Executive Council shall consist, ex-officio, of the President and Secretary of the Association, the President-Elect, the Vice-Presidents, the Board of Trustees, the Board of Councilors and the Legislative Committee, of which Council the President and Secretary of the Association shall be chairman and secretary, respectively. It shall be the duty of this Council to advise and counsel with the President in the management and coördination of the several activities of the Association, upon his call. It shall be the duty of the President to assemble this Council for conference upon request of the Chairman of the Board of Trustees, the Chairman of the Board of Councilors, or the Chairman of the Legislative Committee. It shall be the special

duty of this Council to represent the Association in its relation to the public, through the established agencies of the Association, or agencies to be created by the Council or the House of Delegates for that purpose. It shall formulate and conduct such publicity and educational campaigns as may be ordered by the House of Delegates, and upon plans formulated by the House of Delegates or upon its own initiative if not thus directed. The Board of Trustees shall include in its annual budget a reasonable sum for defraying the expenses of such publicity campaign and such legislative work as may be directed by the House of Delegates. Funds thus set aside shall remain in the treasury of the Association and shall be expended by the Secretary upon orders of the Chairman of the Council.

Sec. 5. (a-2.) The Council on Scientific Work shall consist of five members. The members of the first Council shall be appointed for one, two, three, four and five years, and thereafter the President-Elect shall appoint to fill vacancies created by expiration of term of office. These appointments shall be confirmed by the House of Delegates, and shall be considered at the time of election of officers. The President and Secretary of the State Association and officers of Scientific Sections, shall be ex-officio members of this Council. It shall be the duty of this Council to consider and report to the House of Delegates on all matters of scientific interest to the profession, on its own initiative or upon orders of the President or the House of Delegates. It shall through conferences endeavor to cöordinate the scientific work of the Association, including the work of the Scientific Sections and of the several standing and special committees on scientific subjects. It shall advise with the President and Secretary in the arrangement of the scientific program for the Annual Sessions. It shall have authority to consult or act in conjunction with other organizations in the accomplishment of its purposes, as declared in these By-Laws.

Sec. 6. (a-3.) The Committee on Legislation shall consist of five members. The members of the first committee shall be appointed for one, two, three, four and five years, and thereafter the President-Elect shall appoint to fill vacancies created by expiration of term of office. These appointments shall be confirmed by the House of Delegates and shall be considered at the time of election of officers. The President and Secretary of the State Association shall be ex-officio members of this committee, and its chairman and secretary, respectively. It shall be the duty of this committee to represent the Association in carrying out its legislative policy as established by the House of Delegates or the Executive Council. In the absence of instructions from either the House of Delegates or the said Executive Council, the committee shall have the authority to exercise its own judgment in such legislative matters as may properly come before it. The committee shall serve as a component part of the Executive Council, in accordance with Section 4, Chapter IX, of these By-Laws.

Sec. 7. (a-4.) The Committee on Collection and Preservation of Records shall consist of five members, all past presidents, appointed by the President of the Association upon the nomination of the Association of past presidents, provided that the President shall have the authority to appoint on his own initiative should the said Association of Past Presidents fail to nominate in time for that purpose. The members of the first committee shall be appointed for one, two, three, four and five years, and thereafter the retiring President shall appoint to fill vacancies created by expiration of term of office. These appointments shall be confirmed by the House of Delegates, and shall be considered at the time of election of officers. The President and Secretary of the State Association shall be ex-officio members of this committee. It shall be the duty of this committee to collect and preserve to the best advantage, all records and data pertaining to the Association and its activities which may be of interest to posterity, and which may eventually contribute to the compilation of a comprehensive medical history of Texas. The records and data collected by the committee shall be deposited with the Secretary of this Association.

Sec. 8. (a-5.) The Committee on Transportation shall consist of five members, including, ex-officio, the President and Secretary of the Association. This committee shall have charge of all matters pertaining to railroad rates and transportation to our Annual Sessions and the meetings of other organizations in which the medical profession of Texas may be largely interested. It shall cöoperate with other committees, as it may see fit, in carrying out its purposes.

Sec. 9. (a-6.) The Committee on Arrangements for the Annual Session shall consist of five members. It shall be appointed by the President on nomination of the component county society of the county in which the Annual Session is to be held; provided, that the President shall have the authority to appoint on his own initiative should the nomination here provided for be delayed beyond a reasonable time following the Annual Session preceding. Any vacancy on the committee shall be filled by the President on nomination of the entertaining society. It shall be the duty of this committee to provide, through sub-committees of its own selection, suitable accommodations for the Annual Session, the requirements thereof being ascertained by consultation with the President and Secretary of the Association. This committee shall see that no social function is allowed to interfere with the meetings of the Scientific Sections or a General Meeting, as set forth in the official program, and no alteration or rearrangement of the official program as published shall be made in any particular, except on permission of a General Meeting, or for the purpose of correcting errors therein. No product or enterprise shall be exhibited in connection with any Annual Session which is not acceptable to the advertising pages of the TEXAS STATE JOURNAL OF MEDICINE, as determined by the management of said publication.

Sec. 10. (a-7.) The Committee on Memorial Exercises shall consist of five members. It shall be the duty of this committee to prepare and conduct appropriate services in memory of our dead, at such time during the Annual Session as may be set aside for that purpose.

Sec. 11. (a-8.) The Committee on Publicity shall consist of five members. It shall be the duty of this committee to assist the Arrangements Committee and coöperate with any local committee appointed for publicity purposes, in securing the publication in the lay press and elsewhere, of attractive information relating to the Annual Sessions, prior to, following and during, the Annual Sessions. It shall endeavor to procure from contributors to the scientific program, abstracts of their respective papers, suitable for publication in the lay press and elsewhere; when so procured, the said abstracts shall be properly edited and given to the representatives of such news agencies as may be interested.

Sec. 12. (b) Special Committees for special purposes, may be appointed by the President upon his own initiative, or upon the orders of the House of Delegates or a General Meeting of the Association. When so appointed, the purposes for which

they are appointed, the number of members, terms of office and life of the committees, shall be clearly and definitely stated, and it shall be the duty of the President and the Secretary of the Association to see that such committees are continued as long as may be required, and discontinued when their purposes have been accomplished. Special committees appointed to consider subjects and policies dealt with by a standing committee, shall work in close cöoperation with such standing committees, and if deemed advisable by the President, shall report to the said standing committees.

Sec. 13. (c) As soon as practicable after the organization of the House of Delegates, the President shall appoint the following Reference Committees, to consist of five members each, which committees shall consider and report upon all matters referred to them by the House of Delegates, and shall report finally on all such matters on or before the final meeting of the session for which they were appointed: (1) Reference Committee on Credentials; (2) Reference Committee on Reports of Officers and Committees; (3) Reference Committee on Resolutions and Memorials; (4) Reference Committee on Finance; (5) Reference Committee on Amendments to the Constitution and By-Laws, and (6) Reference Committee on Scientific Work.

Sec. 14. (d) The President shall appoint such Special Delegates and Representatives as he may deem desirable or as may be ordered by the House of Delegates.

Sec. 15. Officers, standing committees, special committees and special delegates, shall be required to file duplicates of their respective reports with the State Secretary ten (10) days prior to the Annual Session, provided that the data and information required for the compilation of said reports are available by that time, and the State Secretary shall have the said reports published in pamphlet form, for the convenience of the House of Delegates.

Chapter X—Scientific Sections.

Section 1. The Scientific Program for the Annual Sessions shall be divided into the following sections:

(1) Section on Medicine and Diseases of Children.
(2) Section on Surgery.
(3) Section on Gynecology and Obstetrics.
(4) Section on Eye, Ear, Nose and Throat.
(5) Section on Radiology and Physiotherapy.
(6) Section on Public Health.

Sec. 2. The President shall appoint a chairman and secretary for each section. It shall be the duty of said chairman and secretary to, in consultation with the Committee on Scientific Work, prepare programs for their respective sections for the next annual session following their appointment. Their term of office shall conclude with the adjournment of the annual Session for which their respective programs are compiled.

Sec. 3. The number of papers to be presented on section programs shall be limited as follows: Section on Medicine and Diseases of Children, 25; Section on Surgery, 25; Section on Gynecology and Obstetrics, 18; Section on Ophthalmology, Otology, Rhinology and Laryngology, 20; Section on Radiology and Physiotherapy, 18; Section on Public Health, 20.

Sec. 4. Section officers shall select the papers to be presented to their respective sections from among the best papers offered, and in accordance with the general plans for the work of the scientific sections formulated by the Council on Scientific Work. Final decision as to the papers to be thus selected shall be deferred by section officers until approximately sixty days before the date of the Annual Session, and any member of the State Association who is in good standing shall have the right, and it shall be his privilege, to offer a paper to any scientific section, but no member or guest shall be allowed to contribute more than one paper to the programs of the scientific sections at the same session, and no paper that has been published shall be accepted for the scientific program of any session of the Association.

Sec. 5. Papers presented by members of the Association must have first been read in full before a component county society, or, where a component county society is not available for this purpose, the district society of which the author is a member. The secretary of such society shall certify to the section secretary that such paper has been so read. It shall be the duty of the officers of sections to ascertain from members who are on their respective programs whether this requirement has been met, and they shall refuse to permit the reading of such papers before their respective sections unless this by-law has been complied with. Papers offered to the scientific sections shall be considered the pledged property of the State Association, and shall in fact become the property of the said State Association when presented, and prospective authors shall be so informed by section officers in advance of the acceptance of their contributions. Papers shall be delivered to the secretary of the section as soon as they have been read before the section; and in the instance the author is not able to present his paper, he shall see that it comes into the possession of the section secretary in time for presentation if it is the desire of the section chairman to have it so presented. All such papers shall be prepared in typewritten form, shall be "originals," written on one side of the paper only, double-spaced and with ample margins, and not bound.

Sec. 6. Scientific Sections shall convene at the time and place prescribed by the scientific program for the Annual Session, and their sessions shall be so conducted as to insure the completion of the program in the time specified. Under no circumstances will such sessions be permitted to interfere with or extend into the time set aside on the program for a General Meeting. The sessions of scientific sections shall be governed by rules of order prepared by the Council on Scientific Work, and where such rules do not cover, by Robert's Rules of Order, so far as Robert's Rules of Order may apply. No essayist shall be permitted more than twenty minutes in which to present his paper; provided, that the Council on Scientific Work may make exception to this rule in advance, which exception, when made, shall be noted on the program. Not more than five minutes shall be allowed each speaker in discussing any one paper. The time allowed speakers shall not be extended in any instance, but it shall be within the province of a section to continue the presentation or discussion of any paper following the time of adjournment of the section, provided the said extension of time does not conflict with a General Meeting.

Sec. 7. Petitions, memorials and resolutions originating in scientific sections must be approved by the House of Delegates before becoming operative.

Chapter XI—County Societies.

Section 1. Five or more physicians of any county or group of counties in this State, who possess the qualifications for membership in the State Association as set out in Section 2, Article II of the Constitution thereof, may, by applying to the Board of Councilors, secure a charter as a component county society of the State Medical Association of Texas,

as provided in Section 5, Chapter IV, of these By-Laws, provided that no other component county medical society of the State Association embraces within its established jurisdiction any part of the territory sought thus to be incorporated. All such charters shall be signed by the President and Secretary of the State Association, and shall bear the seal of the State Association.

Sec. 2. Each component county society shall prepare and enact into law, a constitution and by-laws, or rules and regulations, in keeping with the Constitution and By-Laws of the State Medical Association, no part of which may be in contravention therewith. Before becoming operative, such constitution and by-laws, or rules and regulations, shall be approved by the Board of Councilors, and they shall be promptly submitted for that purpose, through the Councilor of the district in which the component county society is located. Should the Board of Councilors refuse to approve any constitution and by-laws, or rules and regulations thus submitted, the same shall be returned for reconsideration and amendment. The Board of Councilors may revoke the charter of any component county society which fails or refuses to amend its constitution and by-laws, or rules and regulations, so as to make them compatible with the Constitution and By-Laws of the State Medical Association. Only one component county society may be chartered in any one county.

Sec. 3. Component county societies shall have the right and authority to secure incorporation under the laws of the State of Texas, and when so incorporated they shall be entitled to conduct their affairs in accordance with the requirements of the corporate laws of the State of Texas and the Constitution and By-Laws of the State Medical Association of Texas, the former having precedence only where there is an irreconcilable conflict. It shall be lawful for a county society thus incorporated to provide for the transaction of its business through its Board of Directors, provided that an appeal from the decisions of said Board of Directors to the county society is allowed, and that the decision of the county society on such matters so appealed is final, subject only to appeal to the Councilor of the district and the Board of Councilors of the State Association as provided in this Constitution and By-Laws; and provided further, that trials of members for unethical and improper conduct, the election of members and the election of officers, shall be by the society as a whole. The application for incorporation under the laws of the State of Texas shall be made on the following form, or some immaterial modification thereof; provided, that component county societies at the time of the adoption of these by-laws holding charters under the State of Texas which do not require action incompatible with this Constitution and By-Laws, shall not be disturbed:

THE STATE OF TEXAS, }
COUNTY OF..... }

Know All Men by These Presents:

That the persons hereinafter named have agreed to form themselves into a corporation under the provisions of Title 25 of the Revised Statutes of the State of Texas and amendments thereto, and have adopted the following as their charter, to-wit:

ARTICLE I.

This corporation shall be known as the..... County Medical Society, by which name it shall contract and be contracted with, sue and be sued, and conduct all of its business.

ARTICLE II.

The purposes of this corporation shall be to associate in a single body the duly licensed and regular practitioners of medicine in.....County, Texas, for the purpose of promoting medical knowledge, elevating the standard of medical education, encouraging free intercourse among its members, and inculcating principles of professional ethics, protecting its members against impositions, establishing a library for the use of its members, dispensing charity among the worthy sick, and assisting in upbuilding and enforcing the laws enacted to protect the public against any who may offer to practice medicine in violation of the laws of the State of Texas.

ARTICLE III.

Said corporation shall have the right to own and hold such real estate as may be necessary for the purpose of carrying on and transacting its business, but none other.

ARTICLE IV.

The home office and place of business shall be in the City of....., ...County, Texas.

ARTICLE V.

It shall have an existence for a period of fifty years.

ARTICLE VI.

The business of the corporation shall be transacted by a Board of Directors of not less than five nor more than eleven, all of whom shall be duly qualified members. The following persons shall constitute the Board of Directors for the first year, and until their successors are elected, to-wit:

....., whose post office is.....
....., whose post office is.....
....., whose post office is.....
....., whose post office is.....
....., whose post office is.....

ARTICLE VII.

This corporation shall have no capital stock, and its business shall not be conducted for profit.

Witness our hands, this.....day of.....192....

.....
.....
.....
.....
.....

THE STATE OF TEXAS, }
COUNTY OF..... }

Before me, the undersigned authority, on this day personally appeared.....,
....., ...,
....., and.....,
known to me to be the persons whose names are subscribed to the foregoing instrument, and each acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office, this.....
day of.....192....

.....
A Notary Public in and for
.....County, Texas.

Sec. 4. Each component county society shall judge of the qualifications of its own members, but it shall have all due regard for the fact that only through a component county society may a physician become a member of the State Medical Association and of

the American Medical Association, and shall consider that all white, legally registered physicians within its jurisdiction and all white medical officers of the Army or Navy or of the Federal Government, or teachers in "Class A" medical schools of this State who do not practice medicine and who are not required to register under the Medical Practice Act of Texas, who are at the time *bona fide* residents of the State, who do not hold themselves out as practitioners of sectarian medicine and who shall subscribe to the principles of ethics of the American Medical Association, are entitled to membership.

Sec. 5. Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, shall have the right of appeal to the Board of Councilors, which, on a majority vote, may permit him to become a member of another component county society.

Sec. 6. Any physician residing in a county other than that embraced in the charter of a component county society, may become a member of the said component county society upon the same terms as any other member, and any physician residing within the jurisdiction of another component county society may become a member of an adjoining component county society, upon the permission of the society thus holding jurisdiction.

Sec. 7. A member of a component county society removing to a county over which another component county society holds jurisdiction, shall forfeit his membership after a period of twelve months from the date of his location in his new place of residence, unless he has in the meanwhile transferred his membership to the said component county society, holding jurisdiction, as provided in these By-Laws; unless and except he has secured the permission of said component county society holding jurisdiction to remain a member of his previous society, or join another and more convenient society, as provided for in Section 6, Chapter IX, of these By-Laws.

Sec. 8. Any member of a component county medical society whose dues are paid and against whom no charges of unethical or immoral conduct are pending, and who has removed from the jurisdiction of his county society, shall, upon his written request, be granted the right to transfer to another component county society within this State, or to a county society in another state. When such a transfer is presented to a component county society within this State, it shall be honored and the applicant shall at once become a member thereof, and without additional expense to him, provided that in the meantime charges of unethical or immoral conduct have not been presented to either the old or the new county society, which may be dealt with better in the old county society than in the new, under which circumstances the transfer papers shall be returned to the society granting them, with full information as to the charges and accusations made; and it shall be the duty of the county society in which the membership thus remains, to deal with the accused in accordance with these By-Laws. In the instance a transfer from one component society to another is completed, the secretary of the society receiving the transferred member shall immediately notify the secretary of the society extending the permit to transfer, of all the facts in the case, and each secretary shall make due record thereof, and promptly notify the State Secretary of the transaction. Any member received by a county society on transfer from a component county society of another State, shall pay the amount of the per capita assessment made by the State Medical Association of Texas for the current year. In such instances, county and district society dues shall be waived.

Sec. 9. Application for membership in a component county society shall be made in duplicate, and shall contain the following information: Full name and address; place and date of birth; preliminary and medical education, including degrees received; date and number of certificate to practice medicine in Texas; previous locations and dates of residence in each, and such other information as may be required by the State Association or the component county society. Each application shall be endorsed by two or more members of the society to which it is presented, and it shall be approved or disapproved by the Board of Censors before being voted on by the society. No application shall be voted on at the same meeting at which it is presented, or until the Board of Censors has had an opportunity to conduct such investigations as may be required by these By-Laws, provided the said report shall be made within sixty days, or extension of time granted by the society.

Sec. 10. Component county societies shall consist of not less than five members, and there shall be a president, a secretary-treasurer and a board of three censors, and no member can hold more than one of such offices at one and the same time. There may be such other officers as may be required, including a board of directors if the society is incorporated under the laws of the State of Texas. The term of office for all officers, except the censors, shall be for the Association year. The term of office of the censors shall be three years, and they shall be so elected that but one vacancy normally occurs each year. All officers and the delegates to the State Association shall be elected during the month of December, or at the last meeting of the year in the instance there is no meeting in that month. Vacancies in the offices referred to in this by-law shall be filled in the manner stated in the society by-laws; but when no provisions are thus made for any such contingency, such vacancies shall be filled by the component county society president, and until the time for the annual election of officers.

Sec. 11. Each component county society shall be entitled to representation in the House of Delegates on the following basis: One delegate for the first one hundred members or less, and one additional delegate for each additional one hundred members or fraction thereof. (Section 2, Chapter VIII, these By-Laws.) The term of office of delegates shall be two years, and their election shall be, as far as possible, so arranged that not more than half of the vacancies shall occur in any one year. There shall be an alternate delegate elected for each delegate, and it shall be lawful for any alternate delegate to serve in the place of any absent principal, upon the proper transfer of credentials. (Sections 4 and 6, Chapter VIII, these By-laws.) The county society secretary shall furnish each delegate with suitable credentials, certifying to his election, and any delegate has the authority to sign over his credentials to the alternate delegate chosen by the society for his place, or, in the absence of his own alternate delegate, to another alternate delegate who may be able to attend the Annual Session which the credentials cover.

Sec. 12. Secretaries of component county societies shall be the custodians of the books, papers and records of their respective societies, including the charters and incorporation papers, if any; they shall prepare and maintain records showing the names and addresses of both members and non-members,

and such other matter as they may deem pertinent or which they may be required to make note of, either by their respective societies or the State Association; maintain contact as nearly as possible with the physicians of their respective counties; receive all dues and moneys coming to the society, and pay out or direct the paying out of same, or turn the same over to the treasurer, on orders of their respective presidents, and perform such other secretarial duties as their societies may require of them. They shall make annual reports to the State Secretary, as required in this Constitution and By-Laws, and shall make such other reports to the State Secretary as may be required from time to time in the prosecution of the affairs of the State Association and its subordinate bodies.

Sec. 13. The Boards of Censors of component county societies shall examine into and report on the qualifications of applicants for membership in their respective organizations, and shall ascertain from the State Secretary what the records in his office show in regard to the past conduct of any such applicants, before making report to their respective societies. They shall also receive and investigate charges of unethical conduct made against members of their respective societies; and in making reports thereon, they shall include a comprehensive summary of all testimony presented. In making such investigations, boards of censors may assume to summon witnesses and interrogate them on their honor, insofar as the State Association may grant such prerogatives.

Sec. 14. There shall be a committee on legislation and public relations in each component county society, the duties of which committee shall be to cöoperate with the Council on Public Relation of the State Medical Association, or with the Legislative Committee thereof, in public health and legislative matters, and to perform such other duties as may be required of them by their respective county societies.

Sec. 15. County societies shall require of their members strict adherence to the Principles of Medical Ethics of the American Medical Association; observance of the Constitution and By-Laws of the State Medical Association, and approved constitutions and by-laws of their county societies, and shall strictly forbid the act of fee splitting in any of its forms, as defined by the Board of Councilors. They shall have the authority to exact compliance with all laws, rules and regulations covered by this Constitution and By-Laws, through such disciplinary action as reprimand, suspension or expulsion. When charges of unethical, criminal or gross unprofessional conduct, or violation of the principles of ethics or the laws of the State Association or the county society, are made against a member, the said charges shall be reduced to writing and referred without debate, together with all papers and exhibits, to the board of censors. The board of censors shall hear all testimony relating to the case and present a comprehensive agreed summary of same to the society. The said summary of testimony shall be read to the society, which shall then proceed to vote upon the guilt of the accused. All voting shall be by written ballot, and no motion shall be necessary to initiate voting. If a majority vote guilty, the vote shall then be whether the accused shall be (1) censured, (2) suspended, or (3) expelled. If the first ballot is not conclusive the penalty receiving the smallest number of votes shall be dropped, and the balloting continued until the punishment shall have been fixed by the necessary majority as herein provided. Censure and suspension shall each require a majority of, and expulsion two-thirds of the members present and voting. If on any ballot a majority vote for suspension, the vote shall then be taken to fix the term of such suspension, dropping after each ballot the penalty receiving the smallest number of votes. If the penalty fixed be suspension for a specified term, this suspension shall date from the date of this action, unless an appeal be taken, in which event it shall date from the decision of the tribunal to which the appeal was taken. If in any case the balloting be between expulsion and any other one penalty, and expulsion receive a majority composed of less than two-thirds, this penalty shall be declared lost, and the next succeeding ballot cast to determine whether the other penalty under consideration shall be assessed. No action shall be taken by the society until at least six weeks have elapsed since the filing of the charges.

Sec. 16. The accused in any case coming before a component county society, as contemplated in Sections 13 and 15 of this Chapter of the By-Laws, shall be entitled to counsel of his own selection, and shall be allowed to secure through the use of a competent stenographer, a verbatim report of the evidence adduced in the investigation of his case by the Board of Censors (Section 13, Chapter XI, these By-Laws), and he shall be entitled to counsel when his case is considered by the county society (Section 15, Chapter XI, of these By-Laws); provided that the said counsel and the said stenographer shall comply in every respect with the rules and regulations of the Board of Censors and the component county society, and that the said Board of Censors and the said component county society shall be furnished a true copy of all testimony thus taken and with any record made by either the counsel or the stenographer, of any proceedings in connection with the case. It is provided further, that the rules and regulations of Boards of Censors and component county societies herein referred to, shall not be in contravention of the Constitution and By-Laws of the Association.

Sec. 17. Members suspended or expelled under the provisions of these By-Laws, shall be denied all privileges of the Association for the period of their suspension or non-membership, except their subscription to the TEXAS STATE JOURNAL OF MEDICINE, and it shall be the duty of the secretary of the society to promptly notify the State Secretary, who shall make record in his office of any restrictions thus placed by the society against any of its members, and to call the attention of same to proper officers, committees and councils of the State Association and of the American Medical Association, the good of organized medicine being considered; but he shall not, except when specifically so directed by the Board of Councilors of the State Medical Association, make public any such findings.

Sec. 18. County societies shall have the authority to make per capita assessments against their members sufficient to cover the per capita assessments of the State Association and district societies, and defray the expenses of their own organizations; but no official action shall be taken by component county societies establishing a fixed schedule of fees for the medical, surgical and special services of its members, provided that this by-law shall not be so construed as to prevent the discussion of such matters as service and charges therefor, or unofficial agreement between physicians as such rather than as members of component county societies, as to what charges would be proper for such services.

Sec. 19. The Principles of Medical Ethics of the American Medical Association shall govern the members of component county societies in their relation-

ship to each other, to their societies and to the public. In the absence of provisions to the contrary, Roberts' Rules of Order shall govern their meetings and proceedings in general.

Sec. 20. The official year for county societies shall be January 1 to December 31, both dates inclusive, and dues shall be paid accordingly. Members for the preceding year not reported to the State Secretary as having paid their assessments for the current year, shall be considered as having forfeited their membership on the first day of January. Such former members may be reinstated by county society secretaries upon the payment of dues for the current year, if paid within the year, but such reinstatement may not be construed as extending the privilege of medical defense for the period between the first of January and the date upon which they actually paid; but subscription to the TEXAS STATE JOURNAL OF MEDICINE may be extended to cover this period.

CHAPTER XII—DISTRICT SOCIETIES.

Section 1. The Board of Councilors shall organize the profession of each councilor district into a district society when practicable, and shall cause charters to be issued to said district societies in the manner and after the form prescribed for county societies (Section 5, Chapter IV, and Sections 1 and 2, Chapter XI, these By-Laws). It shall be lawful to combine two or more districts into one society, but not to divide districts for this purpose.

Sec. 2. District societies so organized and chartered, shall have for their sole purpose the improvement of the scientific attainments and living conditions of the members of their respective societies, and they shall under no circumstances assume the prerogatives or functions of component county societies, beyond hearing papers read and certifying to that fact, in the absence of opportunity of an author to present the same to a county society, in qualifying for position on the program of a scientific section of the State Association. Officers of district societies shall be as desired by the said societies, and their duties shall be as they may define, provided they do not in any manner contravene the provisions of this Constitution and By-Laws.

CHAPTER XIII—COUNCILOR DISTRICTS.

Section 1. The House of Delegates, acting upon the advice of the Board of Councilors, shall divide the State into appropriate councilor districts, as provided for in Article VIII of the Constitution of the State Association.

Sec. 2. There shall be fifteen councilor districts in the State, the counties being thus grouped:

District No. 1: Brewster, Culberson, El Paso, Jeff Davis, Loving, Pecos, Presidio, Reeves, Terrell, Ward and Winkler.

District No. 2: Andrews, Borden, Cochran, Crane, Dawson, Dickens, Ector, Fisher, Gaines, Garza, Glasscock, Howard, Hockley, Jones, Kent, King, Lynn, Martin, Midland, Mitchell, Nolan, Scurry, Stonewall, Taylor, Terry, Upton and Yoakum.

District No. 3: Armstrong, Bailey, Briscoe, Castro, Carson, Cottle, Childress, Collingsworth, Crosby, Deaf Smith, Dallam, Donley, Floyd, Gray, Hale, Hall, Hardeman, Hemphill, Hutchinson, Hansford, Hartley, Lamb, Lipscomb, Lubbock, Motley, Moore, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher and Wheeler.

District No. 4: Brown, Coke, Concho, Crockett, Coleman, Irion, Kimble, Lampasas, Menard, Mills, McCulloch, Runnels, Schleicher, Sterling, Sutton and Tom Green.

District No. 5: Atascosa, Bandera, Bexar, Comal, Dimmitt, Edwards, Frio, Guadalupe, Gillespie, Gonzales, Karnes, Kendall, Kerr, Kinney, LaSalle, Maverick, Medina, Uvalde, Val Verde, Wilson and Zavalla.

District No. 6: Aransas, Bee, Brooks, Cameron, Dunn, Duval, Encinal, Hidalgo, Jim Wells, Kleberg, Live Oak, McMullen, Nueces, Refugio, San Patricio, Starr, Webb, Willacy and Zapata.

District No. 7: Bastrop, Blanco, Burnet, Caldwell, Hays, Lee, Llano, Mason, San Saba, Travis and Williamson.

District No. 8: Calhoun, Colorado, DeWitt, Fayette, Goliad, Jackson, Lavaca, Matagorda, Victoria and Wharton.

District No. 9: Austin, Brazoria, Burleson, Fort Bend, Galveston, Grimes, Harris, Madison, Montgomery, Polk, San Jacinto, Waller, Walker and Washington.

District No. 10: Angelina, Chambers, Hardin, Jefferson, Jasper, Liberty, Nacogdoches, Newton, Orange, Sabine, San Augustine, Shelby and Tyler.

District No. 11: Anderson, Cherokee, Freestone, Henderson, Houston, Leon, Panola, Rusk, Smith and Trinity.

District No. 12: Bell, Bosque, Brazos, Comanche, Coryell, Erath, Falls, Hamilton, Hill, Hood, Johnson, Limestone, Milam, McLennan, Navarro, Robertson and Somervell.

District No. 13: Archer, Baylor, Callahan, Clay, Eastland, Foard, Haskell, Jack, Knox, Palo Pinto, Parker, Shackelford, Stephens, Throckmorton, Wichita, Wilbarger and Young.

District No. 14: Collin, Cook, Dallas, Delta, Denton, Ellis, Fannin, Grayson, Hopkins, Hunt, Kaufman, Lamar, Montague, Rains, Rockwall, Tarrant, Van Zandt and Wise.

District No. 15: Bowie, Camp, Cass, Franklin, Gregg, Harrison, Marion, Morris, Red River, Titus, Upshur and Wood.

CHAPTER XIV—ASSESSMENTS.

Section 1. An assessment of $10.00 per capita on the membership of component county societies, shall be levied each year, and shall constitute the State Association dues. This assessment shall be collected by the constituent county society secretaries, and forwarded without delay to the State Association Secretary, and the State Secretary shall duly receipt therefor. This assessment, when so collected and forwarded, shall be divided by the Trustees as follows: To the Medical Defense Fund, $1.00; subscription to the TEXAS STATE JOURNAL OF MEDICINE, $2.50 and to the General Fund, $6.50.

Sec. 2. The Medical Defense Fund, consisting of the per capita assessment made therefor, as per Section 1 of this Chapter of the By-Laws, shall be set aside by the Trustees for the use of the Counsel on Medical Defense, in accordance with the provisions of this Constitution and By-Laws.

Sec. 3. That portion of the assessment provided herein for subscription to the TEXAS STATE JOURNAL OF MEDICINE, shall be set aside by the Trustees for that purpose, and it shall be considered and accepted as would subscription fees collected for a publication not under the control of the State Association, provided nothing herein may serve to inhibit the Trustees in the control and expenditure of the fund thus accumulated.

Sec. 4. The Trustees may divide the General Fund, herein provided for, into such funds as may be for the best interests of the Association, and may make appropriations therefrom to meet the requirements of the Association.

CHAPTER XV—RULES OF CONDUCT.

Section 1. The Principles of Medical Ethics of the American Medical Association, as at present published, or as hereafter amended, shall govern the conduct of the members of this Association in their relationship to each other and the public.

CHAPTER XVI—RULES OF ORDER.

Section 1. The deliberations of this Association shall be governed by parliamentary usages as contained in Roberts' Rules of Order, unless otherwise provided by this Constitution and By-Laws.

CHAPTER XVII—AMENDMENTS.

Section 1. These By-Laws may be amended at any Annual Session by a majority vote of the House of Delegates, after the amendment has laid on the table one day.

Finally the committee would recommend that it be discharged and that any consideration of this problem found necessary in the immediate future be relegated to the Executive Council, if these By-Laws providing for such a body are adopted.

Respectfully submitted,

M. F. BLEDSOE, Chairman.
HOLMAN TAYLOR, Secretary.

SUPPLEMENTARY REPORT OF THE COMMITTEE ON AMENDMENTS TO CONSTITUTION AND BY-LAWS.

Your committee respectfully calls attention to the following recommendations regarding the proposed amendments to the Constitution and By-Laws, as per the report of the committee, already filed, and published in the handbook:

(1) Add to the last line in Section 1, Article II of the Constitution, the words, "Provided, that the House of Delegates, upon nomination of component county societies, may elect to honorary membership those physicians of honorable standing who have contributed notably to the advance of ethical medicine, or who may have because of age or other laudable reasons, reached a point of comparative inactivity in the practice of medicine, or entirely retired therefrom; and when so nominated and elected, said honorary members shall be entitled to all of the privileges of membership as set out in this Constitution and By-Laws. Provided further, that county society secretaries shall include all such honorary members in their respective annual reports, with such notation thereon as will at once declare their status.

(2) Add to the last line of Section 2, Article XIII of the Constitution, the words, "Provided that no assessment shall be made upon honorary members of the State Medical Association elected in accordance with Section 1, Article II, of this Constitution, and Section 5, Chapter XI, of the By-Laws.

(3) Add to Section 2, Chapter I of the By-Laws, following the word "members" in the first line thereof, the words, "and honorary members."

Add to Article XI, a section to be known as Section 5, as follows:

"Sec. 5. Component county societies may nominate for honorary membership in the State Medical Association, any physician of good professional and moral standing in their respective jurisdictions who has rendered extraordinary service to the cause of ethical medicine, or who have for any good and sufficient reason withdrawn partially or entirely from the practice of medicine, in accordance with Section 1 of Article II of the Constitution of the Association; and when elected by the House of Delegates of the State Association, the said honorary members shall be carried on the rolls of their respective county societies and reported in the annual reports of the county society, as provided herein.

And that when so added, the present Sections 5 to 20 of Chapter XI shall be renumbered to read Sections 6 to 21, accordingly.

(4) Amend Section 7, Chapter IV of the By-Laws, by striking out the words "legal counsel" in line 26 thereof, and inserting in lieu thereof the words "counsel of their choice, respectively, from among the members of the State Medical Association."

(5) Amend Section 16, Chapter XI, of the By-Laws by adding to the fourth line thereof, following the word "selection," the words, "made from among the members of the State Medical Association," and by adding to line 9 thereof, following the word, "counsel," the words "selected from the members of the State Medical Association.

(6) Amend Section 15, Chapter XI, by adding to line 21 thereof, following the word "comprehensive," the word "agreed."

(7) Amend Section 9, Chapter XI, of the By-Laws, by adding to line 10 thereof, following the word "Society," the sentence, "The Secretary shall retain the original application in his files, forwarding the duplicate to the State Secretary."

The committee has been importuned to provide for the election of councilors either by district societies, or by the House of Delegates upon nomination of district societies. The problem involved has been thoroughly considered and extensively discussed, and while the committee is unanimous in its desire that corrections be made of certain faults of the present system it hesitates to make the change required because by doing so one of the fundamental principles of the plan of organization at the present time followed by all state medical associations would be violated. The committee is of the unanimous opinion that the purpose of the proponents of such a change would be served by the adoption of the following resolutions, which adoption is strongly recommended:

RESOLUTION, ELECTION OF OFFICERS.

Whereas, Councilors are in fact officers of the State Medical Association, for which reason it would seem desirable that they be elected by the House of Delegates as are other officers; and

Whereas, the Councilor, notwithstanding he is an officer of the State Medical Association, bears such intimate relationship to the members of the component county societies of his district as to call for special consideration of the needs of his district by the House of Delegates; therefore be it

Resolved, that it shall be the policy of the House of Delegates to elect the said Councilors only upon nomination of delegates of their respective districts.

The committee has been impressed with the desirability of providing in the proposed By-Laws that the House of Delegates shall hold its first session on the day prior to the convening of the Annual Session each year, in order to give members of the House of Delegates an opportunity to participate in the scientific discussions of the said Annual Sessions, but is not willing to place such a provision in the By-Laws at this time. It will be noted that Section 2, Article IX of the Constitution, and Section 1, Chapter VII of the By-Laws, constitute full authority for the House to meet on the day prior to the convening of the Annual Session, and adjournment may be had this year to such a time next year, merely upon motion of any member of the House. However, in order to get the problem fairly before the House for decision, the adoption of the following resolution is recommended:

RESOLUTION, MEETING HOUSE OF DELEGATES.

Whereas, it seems desirable that the House of Delegates shall adopt the policy of holding its first meeting of each Annual Session on the day prior to the convening of the said Annual Session; therefore be it

Resolved, that when the present session of the House of Delegates adjourns, it do so to meet again in regular session upon the day prior to the convening of the Annual Session for 1926.

With the above recommendation, the committee is unanimous in the approval of the proposed revision of the Constitution and By-Laws, as printed in the handbook.

Respectfully submitted,
M. F. BLEDSOE, Chairman;
HOLMAN TAYLOR, Secretary.

The President: The Reference Committee on Revision of the Constitution and By-Laws will have that whole report, but the Reference Committee on Resolutions and Memorials will be furnished with a copy, and will give consideration to the question of convening on the day preceding the Annual Session next year.

Dr. W. L. Allison of Fort Worth, then submitted the report of the Committee on Care and Treatment of the Insane as follows:

REPORT OF COMMITTEE ON CARE AND TREATMENT OF THE INSANE.

A short time after being appointed, our committee was called together at Fort Worth, and upon invitation, Dr. Caswell Ellis, Secretary of the Eleemosynary Commission, appointed by the Legislature, met with us. The entire day was spent in a full discussion of matters pertaining to the work of the Eleemosnary Commission, and the program desired to be carried out by the State Medical Association. We learned that the Eleemosynary Commission had succeeded in having a survey made of our asylums, which was done by the National Committee for Mental Hygiene, at a cost of about $20,000.00 paid by themselves, and that the Legislative program, as mapped out by the Eleemosynary Commission, was in entire accord with our own, so that we agreed to join forces and attempt to get as much of this program through the Legislature as possible. This committee was invited to meet with the Eleemosynary Commission in Austin in December, at which time a free discussion was had of the report of the National Committee for Mental Hygiene and the Eleemosynary Commission, following which the chairman of our committee was asked to assist Mr. Beasley, Chairman of the Eleemosynary Commission, and Dr. Haines of the National Committee for Mental Hygiene, in formulating a bill to be presented to the Legislature. Dr. Norsworthy agreed to secure the publication of an edited report of the Eleemosynary Commission, and the Secretary of the State Medical Association agreed to mail out this report, all of which was done. The bill was prepared and was introduced into the House as H. B. 249, by Mr. John F. Wallace, who had no difficulty in getting it passed by a vote of 100 to 11. The bill was introduced in the Senate by Mr. John Davis, and passed that body by a vote of 20 to 8. We soon learned that there was much opposition on the part of certain members of the Senate, and also the Governor, regarding the establishment of a psychopathic hospital near Dallas, the trained psychiatrist of which would be available for teaching in Baylor Medical College. Upon learning that the bill would be vetoed if it carried this provision Mr. Wallace secured the passage in the House and Senate of a concurrent resolution recalling the bill from the Governor. It was then amended so as to eliminate the features objectionable to the Governor, and was again passed by both branches and was later signed by the Governor.

The amended bill, as passed and signed by the Governor, contains some very important changes over the original bill, the most important of which was the elimination of the Director of Mental Hygiene, who would have been located with the Board of Control and who would have had general supervision over all institutions regarding the study, diagnosis and treatment of the insane, and who was to recommend to the Board of Control for appointment future superintendents of our asylums. The original bill provided that psychopathic hospitals should be established at Dallas and Galveston, and the directors of these hospitals, who would be trained psychiatrists and hospital superintendents, would be available as teachers of psychiatry in our two medical colleges, thus giving some training to the future doctors of this State, which would enable them better to recognize the earlier symptoms of mental breakdowns. Neither the Eleemosynary Commission nor this committee, had in mind state support for a sectarian medical school, but we believed that such a provision would be an additional safeguard for the mental health for the people of this State. As above mentioned, this provision met with such a furor of objection that the clause permitting the Dallas psychiatrist to teach in Baylor Medical College was eliminated. The original bill also provided that the Board of Control would have supervision over the character of buildings of any private institutions established in the future. This was also eliminated from the amended bill.

The original bill provided a salary of $4,000.00 for the superintendents of the present institutions. This was eliminated and the superintendents will continue to receive the inadequate compensation of $2,500.00 per year. The bill which became a law does contain a number of noteworthy improvements which, however, are but a step in the direction of securing the vitally needed changes in the care and treatment of the insane in our State. The various institutions will now be known as state hospitals, with the name of the town in which they are located added, thus eliminating the objectionable words lunatic and insane. The Board of Control is required to divide the State into hospital districts, for the more convenient and just distribution of patients. The bill also provides for the collection of fees from the relatives of those patients who are financially able to pay for maintenance. Unfortunately, however, the collection of only the actual maintenance is allowed and does not take into consideration the further cost of maintenance, such as the original cost of buildings, and interest on money invested and the fact that many relatives are able to pay adequate sums. The bill further provides that patients may be committed to the hospitals upon the certificates of two properly qualified and licensed physicians which are filed with the county judge, but it also provides for a jury trial when demanded. It is to be hoped that the courts will uphold this provision, as it will abolish the humiliating public court trial heretofore required. It also provides that no insane person shall be confined in any other place than an institution for the treatment of the insane for a period longer than 30 days. Nor shall they be committed to any jail, except when in the judgment of the county health officer no other quarters suitable can be provided. It also provides that the county health officer shall see that such persons are cared for in places suitable for the comfortable, safe and humane confinement of such persons pending their transfer to the State Hospital; and where an insane person is committed to jail, the Board of Control shall be immediately notified by the judge. The law also provides for the temporary, voluntary admission of patients, and for the temporary

leave of absence and discharge of patients. The unscientific forms of restraint are prohibited and restraint is permitted only upon an order of the physician, and the proper recording of such instructions, and of the nature and duration of the restraint. All implements or devices of restraint not in actual use must be kept under lock and key.

There are other minor details too numerous to mention in this report, and a few minor errors in typography, which it is hoped can be corrected in the future. It is the hope of this committee that provision will be made for the proper codifying of the laws pertaining to the insane, and that further improvements in the law will be made by the next Legislature. Neither the bill as passed nor the appropriations bill, provides the money for the building of the two psychopatic hospitals, and it is hoped that this will be done by the next Legislature. It is also the desire of the Eleemosynary Commission and this committee, and acute cases; that each of these hospitals shall be established in connection with each of the State hospitals, to be used as receiving hospitals for all new and acute cases; that each of these hospitals shall be in charge of a trained psychiatrist, who will carry on intensive study, observation and treatment of all the acute cases, and conduct staff meetings and clinics for the betterment of the assistant physicians in the state hospitals, and for such post-graduate work as any doctor in the State might desire to receive.

In the opinion of this committee the passage of this bill was made possible by the work of education carried on by the State Medical Association, as well as by the activities of the Eleemosynary Commission, and the wonderful aid rendered by the National Committee for Mental Hygiene under the direction of Dr. Thomas Haines of New York City. We respectfully beseech the new officers and House of Delegates, and the members of the State Medical Association, to keep the ball rolling, now that it has gotten a start.

Respectfully submitted,

WILMER L. ALLISON, Chairman.
O. L. NORSWORTHY.
A. L. LINCECUM.
J. N. WHITE.
JOHN W. BURNS.
J. J. TERRILL.
T. L. MOODY.

Referred to the Reference Committee on Reports of Officers and Committees.

The report of the Texas Member of the National Legislative Council, was then submitted, as follows:

REPORT OF THE TEXAS MEMBER OF THE NATIONAL LEGISLATIVE COUNCIL.

As our Annual Session precedes the Annual Meeting of the A. M. A. by approximately one month, and as there are many matters to be discussed and disposed of in the latter meeting before adjustments can be made, this report will be brief.

Criticism has been made and it appears to me with entire justification, that the United States Public Health Service seems to be engaging in the general practice of medicine at many points where their representatives are stationed.

According to my conception the primary functions of the United States Public Health Service should be to control epidemics and preventable diseases, and to conserve the best interest of the people, as well as the profession, this duty should rarely be exceeded.

At the coming meeting of the American Medical Association it is proposed to take these matters up with the Bureau of Legal Medicine and the Surgeon General, and a report of this conference will be made at a later date.

W. BURTON THORNING.

Referred to the Reference Committee on Reports of Officers and Committees.

Dr. William Keiller of Galveston, then made the report of the Texas delegate to the Association of American Medical Colleges, as follows:

REPORT OF TEXAS DELEGATE TO THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

Dr. William Keiller of Galveston: I regret, gentlemen, that I have fallen down on the job. I have no written report. It is exceedingly difficult to epitomize the work of the Association of American Medical Colleges. I will mention briefly the matters that struck me most. The Association of American Medical Colleges feels that it has done very excellent work in attempting to standardize premedical and medical education, and there is an effort on their part, which was called attention to by Dr. Graves, to get more elasticity in the premedical education, and also in the curriculum of medical education. My personal opinion is that they are inclined to go too far in the matter of premedical education, but an effort is being made to make this more elastic.

I think one of the most constructive things that was done was a special report on the necessity of emphasizing and teaching hygiene in the ordinary medical curriculum. The great point is, that they do not call for any additions to the already overloaded curriculum, but they insist upon the necessity of emphasizing hygienic subjects in all the branches of the curriculum. They even went the length of asking that the Chair of Anatomy emphasize matters of health. I felt that that would be somewhat hard to do, but it was further insisted that biochemistry should emphasize matters relating to general hygiene, and that in medicine, physiology, and the various other branches, more attention should be given to the subject of hygiene. There was a very important article read on the subject of physiotherapy, and I feel thoroughly convinced that all medical schools will have to make arrangements for the teaching of physiotherapy in the very near future.

The President: Referred to the Reference Committee on Scientific Work.

Dr. A. C. Scott of Temple then submitted his report as Fraternal Delegate to the New Mexico State Medical Society, as follows:

REPORT OF FRATERNAL DELEGATE TO THE NEW MEXICO STATE MEDICAL ASSOCIATION

It is my pleasant duty to report that, in accordance with appointment, I visited the New Mexico State Medical Association, which met at Santa Fe, New Mexico, May 27, 28 and 29, and extended greetings from the State Medical Association of Texas.

It was my further privilege to present to them an address upon Hospital Standardization.

It was also my privilege to hear and take part in the discussions relative to the legislation which has been put through in the State of New Mexico licensing chiropractors, and giving this cult a special board of examiners, which places them on an equal basis with the regular physicians of the State. The deplorable position in which the medical profession of New Mexico has been placed is one from which there is little probability of recovery.

From the manner in which the law passed their Legislature and the lack of consideration given by the legislators to the regular medical profession, one gains the impression that doctors in New Mexico have

no influence or standing with their law makers, and that the chiropractors have been quite busy educating the public to suit themselves.

The New Mexico Medical Association is, of course, not a very large body, but it is composed of a goodly number of scientific men, who furnished a good program, which was discussed with much interest and profit.

Respectfully submitted,

A. C. Scott.

Referred to the Reference Committee on Reports of Officers and Committees.

Dr. J. H. Caton of Eastland, then submitted his report as Fraternal Delegate to the Oklahoma State Medical Association, as follows:

Report of the Texas Delegate to the Oklahoma State Medical Association.

The thirty-second annual meeting of the Oklahoma State Medical Association convened for three days, May 13-14-15, 1924, in Oklahoma City.

The first morning was given over to registration and to clinics, until 11:00 a. m., when the House of Delegates met for the purpose of announcing the committees appointed by the President, then adjourning until the second morning. At 1:00 p. m. the scientific work started, which extended through the afternoon. At 8:00 p. m., the first general session was held, at which time the conventional welcome address and response were given, together with the President's address. The President-Elect also addressed the body, outlining his program for the coming year. This was followed by a lecture, illustrated with lantern slides, on Humoral Eruptions, by Dr. M. F. Engman of St. Louis.

The second morning was given over to clinics and a meeting of the House of Delegates, at which time committees' reports were received. The Chamber of Commerce joined the members and visitors at 12:15 p. m. in a luncheon. At 1:00 p. m., the scientific programs were taken up again, and continued through the afternoon. At 7:30 p. m. there were held two general sessions, medical and surgical, followed by an informal reception and dance.

The forenoon of the third day was given over to clinics, and a meeting of the House of Delegates, at which time committees made their final reports, officers were elected, and Tulsa was selected as the place of next annual meeting. The afternoon closed the session, with completion of the scientific program.

I wish to call attention to a few things which were particularly noticeable to me:

(1) All resolutions were referred direct to the resolutions committee, without being presented on the floor of the House, and were brought in by the resotions committee, with approval or disapproval.

(2) The Oklahoma Association also is considering the matter of Revision of the Constitution and By-laws.

(3) The President-Elect addresses the General Session, outlining his policy for the next year.

(4) The House of Delegates dispatches the work rapidly, and at hours when the scientific sections are not in session.

(5) Clinics were held in the various hospitals of the city during the forenoons, and no scientific papers were presented in the forenoon.

(6) The entire program was highly scientific, instructive and interesting. The profession is of a high type, congenial and in harmony one with another. I was the only Fraternal Delegate in attendance, and was shown every courtesy and provided with every comfort possible. I wish to express my thanks to the profession of Oklahoma and to acknowledge the honor that has come to me through this appointment as Fraternal Delegate to Oklahoma.

Respectfully submitted,

J. H. Caton.

The President: Next is reading of communications.

The Secretary then read the following telegram from Dr. P. T. Talbot, Secretary of the Louisiana State Medical Society: "Greetings. Hope you are having a most successful meeting." The telegram was ordered filed.

The following letter was then read by the Secretary:

April 27, 1925.

Dr. M. F. Bledsoe, President, State Medical Association of Texas, Port Arthur, Texas.

Dear Doctor Bledsoe:

Your highly appreciated invitation to attend the meeting of the Texas State Medical Association at Austin, has been before me for some time and I would have replied promptly had it not been that I was not able to decide whether or not I would be able to be with you in Austin, in the presence of other appointments that were due about the same time.

Dr. S. P. Cunningham of San Antonio, as Chairman of your surgical section, had previously invited me to contribute a paper to the proceedings of the section, but I wrote him on March 18th, informing him that I was compelled to decline because of a number of meetings at home and vicinity, which I was expected to attend and which would prevent me from accepting his very kind invitation. I now find that in addition to these local and regional meetings, there will be meetings of the Board of Regents of the American College of Surgeons, in connection with the Congress that will be held in Washington on May 7th, precisely on the day when your meeting will be taking place at Austin. This conflict of dates only confirms my inability to comply with your request. I regret that I will have to miss so excellent an opportunity to renew my old friendships at Austin, especially as my recent experience at Beaumont has made me realize the warmth and the cordiality of the reception that would be accorded me at Austin. Since I will not be able to deliver in person the message of good will and cordial coöperation that the College of Surgeons would have wished me to convey to your State Association, I beg of you to express the sentiments of high regard and appreciation that animate me personally towards the association, and to assure the members of the deep interest and fraternal sympathy with which the College of Surgeons views the splendid work of the organization in Texas. The Association can depend upon the warm support of the College in every effort to advance the high standards of efficiency and character of surgery and surgical institutions that it is the purpose and mission of the College to promote and cultivate throughout the country.

Thanking you again for the cordiality of your invitation, and with my heartfelt and best wishes for a brilliant and profitable meeting, I beg to remain, your very sincerely,

R. Matas.

The President: Reading of memorials and resolutions.

Dr. E. H. Cary of Dallas, offered a resolution inviting the American Medical Association to meet in Dallas in 1926, which was referred to the Reference Committee on Resolutions and Memorials.

Dr. C. C. Cody of Houston introduced a resolution pertaining to the use of the suffix "M. D." instead

of the prefix "Dr.," by members of the State Medical Association, which resolution was referred to the Reference Committee on Memorials and Resolutions.

Dr. C. C. Cody of Houston, offered a petition from the Harris County Medical Society, requesting a decision, either from the State Medical Association or from the Judicial Council of the American Medical Association, relative to the practice of medicine under trade names, which was referred to the Board of Councilors.

Dr. C. C. Cody of Houston, presented a resolution from the Harris County Medical Society, pertaining to the annual dues of the association.

The resolution was referred to the Reference Committee on Resolutions and Memorials, with the exception of that part referring to amendment of the By-Laws, which was referred to the Reference Committee on Amendments to the Constitution and By-Laws.

The President: Has anyone anything to bring up at this time?

Dr. J. D. Osborne of Cleburne: About one-half of the members of my society were in favor of the $15 dues and the other half against it. Some paid their county society dues of $3.00 and refused to pay their dues to the State Association. What standing have the latter in the State Association?

The President: Ask your Councilor; he will tell you that they don't have any.

Dr. W. N. Wardlaw of Childress: A very valuable member of this association, who has been President, in fact, has been sick for the last several months, and still confined to his bed. I refer to Dr. Bacon Saunders. I move that this House of Delegates send him a telegram of regret and respect.

The motion was seconded, put and carried.

First Report of the Reference Committee on Credentials.

The Reference Committee on Credentials reported the list of accredited members of the House of Delegates, which list was approved by vote of the House, as follows:

Membership of the House of Delegates*

Anderson—H. R. Link.
Angelina—T. A. Taylor.
Austin—O. E. Steck.
Bee—H. Neeley.
Bell—J. M. Frazier.
Bexar—J. W. Goode, R. E. Bowen.
Bosque—J. C. Jarrett.
Bowie—J. N. White.
Brazoria—F. R. Wynn.
Brown—W. B. Anderson.
Burleson—E. W. Stork.
Caldwell—Edgar Smith.
Cameron—W. E. Spivey.
Cass—A. E. Starnes.
Cherokee—Thomas H. Cobble.
Childress - Collingsworth - Donley - Hall — W. N. Wardlaw.
Coleman—R. R. Overlady.
Comal—L. G. Wille.
Comanche—A. J. Gray.
Cooke—D. M. Higgins.
Dallas—C. R. Hannah, E. H. Cary, J. J. Terrill.
Delta—M. A. Estep.
Denton—J. M. Inge.
DeWitt—J. W. Burns.
Eastland—E. F. Blackwell.
Ellis—S. H. Watson.
El Paso—C. M. Hendricks, W. P. Rogers.
Falls—S. P. Rice.
Fannin—C. A. Gray.
Fisher-Stonewall—W. W. Callan.
Fort Bend—J. W. Boyle.
Freestone—W. McFadin.
Galveston—E. D. Crutchfield.
Gonzales—W. T. Dunning.
Grayson—M. M. Morrison.
Gregg—V. R. Hurst.
Grimes—C. C. Harris.
Guadalupe—N. A. Poth.
Hamilton—C. M. Hall.
Hardeman-Cottle—J. T. Horton.
Harris—C. C. Green, C. C. Cody, E. F. Cook.
Harrison—J. A. Moore.
Hays—P. J. Shaver.
Henderson—L. L. Cockrell.
Hidalgo—J. G. Harrison.
Hill—J. E. Boyd.
Hopkins—W. E. Conner.
Hunt—J. W. Ward.
Jefferson—J. B. Swonger.
Johnson—J. D. Osborn.
Kerr-Kendall—J. E. McDonald.
Kleberg—C. P. Yeager.
Knox-Haskell—A. A. Smith.
Lamar—T. W. Buford.
Lampasas—O. A. Kirby.
LaSalle-Frio-Dimmitt-McMullen—B. E. Pickett.
Lavaca—John Guenther.
Lee—J. M. Johnson.
Limestone—J. B. Barnett.
McLennan—S. Ross Jones.
Madison—Jas. E. Morris.
Marion—Felix Peebles.
Matagorda—A. S. Morton.
Medina-Uvalde-Maverick-Val Verde-Edwards-Real—S. B. Hudson.
Milam—G. B. Taylor.
Montgomery—C. M. Covington.
Navarro—W. D. Cross.
Orange—W. P. Coyle.
Potter—S. P. Vineyard.
Reeves-Ward-Pecos—Jim Camp.
Runnels—J. W. Blasdell.
Rusk—C. A. Dawson.
San Patricio-Aransas-Refugio—Preston Worley.
San Saba—A. D. Nelson.
Smith—Edgar H. Vaughn.
Stephens—C. D. Cupp.
Tarrant—J. H. McLean, Edwin Davis.
Tom Green—A. C. DeLong.
Travis—C. W. Goddard.
Van Zandt—D. Leon Sanders.
Victoria-Calhoun—A. D. Gibson.
Walker—H. S. Robertson.
Waller—M. A. Jones.
Washington—Luther Kusch.
Webb—J. A. Simpson.
Wharton-Jackson—G. L. Davidson.
Williamson—C. C. Foster.
Wise—T. G. Rogers.
Wood—R. H. Coleman.

Ex-officio Members.

President—M. F. Bledsoe, Port Arthur.
Secretary—Holman Taylor, Fort Worth.
Treasurer—K. H. Beall, Fort Worth.

Trustees—John T. Moore, Houston; M. L. Graves, Galveston; W. R. Thompson, Fort Worth; W. B. Russ, San Antonio, and J. S. Turner, Dallas.

Council on Medical Defense—W. D. Jones, Dallas; F. P. Miller, El Paso; A. P. Howard, Houston.

Councilors—W. L. Brown, El Paso; P. C. Coleman, Colorado; A. F. Lumpkin, Amarillo; Joe E. Dildy,

*For the sake of convenience, the membership of the House, as developed by the several reports of the Reference Committee on Credentials, is combined in this list.

Brownwood; C. S. Venable, San Antonio; F. U. Painter, Corpus Christi; Joe Gilbert, Austin; O. S. McMullen, Victoria; W. B. Thorning, Houston; D. S. Wier, Beaumont; N. D. Buie, Marlin; J. H. Caton, Eastland; A. B. Small, Dallas, and J. K. Smith, Texarkana.

Council on Legislation and Public Instruction—C. M. Rosser, Dallas; I. C. Chase, Fort Worth; H. W. Cummings, Hearne; A. A. Ross, Lockhart; A. C. Scott, Temple; Joe Becton, Greenville; S. E. Thompson, Kerrville, and A. F. Beverly, Austin.

On motion, the House adjourned to meet again at 1:00 p. m., Wednesday, May 6, 1925.

General Meeting and Memorial Exercises.

The General Meeting convened in the First Baptist Church, 8:00 p. m., with Dr. D. M. Higgins, of Gainesville, Chairman of the Committee on Memorial Exercises, in the Chair.

The Reverend W. R. Minter, Pastor of the First Southern Presbyterian Church, delivered the invocation, as follows:

Invocation.

Almighty God, we would pause on the threshhold of this program and look up into Thy face and ask Thee in Christ's Name to grant us Thy blessing. Give us grateful hearts as we look back over the day that has passed and the year that has passed, and especially as there comes to us memories of those who have labored with these Thy servants, and who now have ceased from their labors. Give unto us, we pray Thee, courage, fidelity and devotion in the present task, and out into the coming days of the future. Give us hope and faith and Thy righteous guidance, and Thy blessing. Make this service and make these days of fellowship here, most happy and most helpful to us, and of such nature that they shall glorify our God and Father. Bless all these friends that follow their Master as he served and as they serve. Make their stay in our city a happy stay to them, and we thank Thee for bringing them to us for this convention. We ask it in Jesus' name. Amen.

Chairman Higgins: We will be favored with a vocal solo by Mr. John A. Stevenson.

Chairman Higgins: My friends, we have met tonight, as has been the custom for many years, on the first day of our Annual Session, to hold memorial services for those of our fellows who have gone to their great reward. While we would like to have, as we have had in the past, at times, eulogies of some of these loved ones, the list is growing from year to year to such an extent that we feel the custom is becoming impracticable. As Dr. Decherd reads the names, let us think of the virtues of those who have gone and visualize them in our memory.

Dr. Geo. M. Decherd, of Austin: The names of the members of the Association will be read first. Then will follow the names of those who were not members of the Association, but respected members of the profession.

Deceased Members, 1924-1925.

Bates, Dr. Wm., Purdon.
Blount, Dr. Ralph T., Wootters.
Bond, Dr. Geo. D., Fort Worth.
Clark, Dr. C. B., Troup.
Clay, Dr. Henry, Dallas.
Crain, Dr. A. B., Belton.
Crook, Dr. W. J. Dallas.
Dodge, Dr. S. T., Corpus Christi.
Echols, Dr. Mathew H., Wills Point.
Ely, Dr. J. J., Jacksonville.
Gipson, Dr. Wm. M., Lytle.
Gray, Dr. E. H., San Antonio.
Greer, Dr. J. C., McKinney.
Handley, Dr. B., Corrigan.
Heartsill, Dr. C. E., Marshall.
Hester, Dr. J. B., Buffalo.
Kingsley, Dr. B. F., San Antonio.
Mahan, Dr. L. L., Hempstead.
Mayo, Dr. S. L., Bishop.
McCardell, Dr. Douglas, Cold Springs.
McManus, Dr. Wm. F., San Antonio.
Moulton, Dr. J. S., Texarkana.
Nance, Dr. L. M., Dallas.
Owens, Dr. J. F., Plainview.
Payne, Dr. Geo. W., Roxton.
Phillips, Dr. Hiram M., Terrell.
Phillips, Dr. Jasper D., Tyler.
Reeves, Dr. D. H., Burkburnett.
Richardson, Dr. Wm. P., Somerville.
Sowell, Dr. L. B., Forney.
Swinney, Dr. B. A., Newton.
Tainter, Dr. L. K., Fredericksburg.
Thomas, Dr. Geo. T., Amarillo.
Vaughan, Dr. Bascom, Hillsboro.
Wallace, Dr. B. C., Athens.
West, Dr. W. B., Fort Worth.
Wickline, Dr. R. M., Austin.
Williams, Dr. Dee, Anson.
Wilson, Dr. C. F., Memphis.
Yates, Dr. F. P., Rusk.

Deceased Nonmembers, 1924-1925.

Allison, Dr. G. T., Fort Worth.
Ballard, Dr. Silas, Coleman.
Blair, Dr. J. M. D., Trevat.
Carlton, Samuel R., Krum.
Castleberry, Dr. J. K., Nacogdoches.
Cavitt, Dr. J. W., Bryan.
Chapman, Dr. J. H., Lufkin.
Cline, Dr. R. R. D., Galveston.
Colley, Dr. L. H., Smithfield.
Cook, Dr. J. W., Marlin.
Cullom, Dr. W. C., Mesquite.
Davidson, Dr. S. D., Reagan.
Downs, Dr. L. S., Waco.
Dunagan, Dr. J. T., Electra.
Ferguson, Dr. R. K., Miles.
Finney, Dr. W. D., Cuero.
Fitzsimon, Dr. J. T., Castroville.
Flewellen, Dr. W. F., Belton.
Gilliam, Dr. J. B. J., Italy.
Gould, Dr. W. C., Bells.
Hays, Dr. E. O., Denton.
Hendrix, Dr. H. B., Bonita.
Hons, Dr. J. M., San Marcos.
Johnson, Dr. R. A., Flatonia.
Liddell, Dr. F. A., Milano.
Linder, Dr. E. L., Tennessee Colony.
Lovett, Dr. J. A., Liberty.
Mayfield, Dr. J. E., San Antonio.
Oxford, Dr. L. G., Stephenville.
Patton, Dr. W. J., Blossom.
Pickens, Dr. S. K., Winfield.
Reed, Dr. John Fleetwood, Wichita Falls.
Relyea, Dr. Spencer G., Dallas.
Roquemore, Dr. J. L., Long Branch.
Shackelford, Dr. C. E., Dallas.
Shankle, Dr. W. M., Chilton.
Smith, Dr. I. E., Pecos.
Snodgrass, Dr. Samuel E., Desdemona.
Stell, Dr. W. W., Paris.
Stephens, Dr. G. H., Personville.
Storey, Dr. F. W., Arp.
Stovall, Dr. A. J., San Antonio.
Van Noy, Dr. J. T., Dodd City.
Wells, Dr. James Monroe, Houston.
Willette, Dr. H. L., Newton.
Wimer, Dr. W. W., Honey Grove.
Windham, Dr. S. H., Tahoka.
Wood, Dr. J. C., Waco.

The Chairman then delivered the memorial address which will be found on page 50 of this number of the Journal.

Chairman Higgins: The next number on the program is a quartet, "Come Where the Lilies Bloom," by Mrs. R. J. Hank, Miss Mattie Yancey, J. A. Stephenson and Anton Berkman.

Chairman Higgins: The next is a violin solo, "Melody," by Miss Anna Frances Griffith.

Chairman Higgins: The next is an organ number, "Adoration," by Miss Irene Maddox.

Chairman Higgins: On behalf of the State Medical Association, I want to thank Dr. Green for the use of this church, and especially do I wish to thank the choir for this beautiful music; also, Dr. Decherd for this program, because it was through his help that the music and the church were arranged for.

The Rev. W. R. Minter, then delivered the benediction, as follows:

BENEDICTION.

May the grace of our Lord and Savior, Jesus Christ, the love of God, our Father, and the fellowship of the Holy Spirit abide with you forever. Amen.

There being no further business, the meeting stood adjourned.

Second Day, Wednesday, May 6, 1925

MINUTES OF THE HOUSE OF DELEGATES.

The House of Delegates met pursuant to adjournment, at 1:00 o'clock p. m., with President Dr. Bledsoe in the Chair. The Secretary called the roll and announced that 84 members of the House were present, and the Chair declared a quorum.

The Board of Councilors, through Dr. Joe Gilbert, Secretary, submitted a supplementary report, as follows:

SUPPLEMENTARY REPORT OF THE BOARD OF COUNCILORS.

The following petition from the Harris County Medical Society has been referred to the Board of Councilors:

"The Harris County Medical Society presents the following petition to the State Medical Association of Texas in its Fifty-ninth Annual Session at Austin, Texas:

"The Harris County Medical Society respectfully requests a decision either from the State Medical Association or from the Judicial Council of the American Medical Association, relative to the question as to whether or not the practice of medicine under a trade name is for the best interest, everything considered, of the laity and medical profession."

The Board holds the opinion that it is not unethical to engage in the practice of medicine under a trade name, so long as such practice conforms to the Principles of Ethics of the American Medical Association.

The Board desires at this time to recommend to the House that the annual dues be assessed only to the amount found necessary by the Board of Trustees to continue the policy of publicity and education, and increased activities of the Association as outlined last year.

Respectfully submitted,

W. B. THORNING, Chairman,
JOE GILBERT, Secretary.

On motion of Dr. C. C. Green of Houston, seconded by Dr. F. P. Miller of El Paso, the report was adopted.

The Secretary: There is a special committee of the House, Dr. Wardlaw, Chairman, to wire condolence to Dr. Bacon Saunders, of Fort Worth, a former President of the Association.

Dr. W. N. Wardlaw of Childress: The following telegram was sent Dr. Saunders, as directed: "The House of Delegates directs us to extend best wishes for your speedy recovery, and regrets your inability to attend this session. W. N. Wardlaw, J. D. Osborn and Joe Gilbert."

On motion, the report was received and filed.

SECOND REPORT OF THE REFERENCE COMMITTEE ON CREDENTIALS.

Dr. M. M. Morrison of Denison, Chairman of the Reference Committee on Credentials, moved that the list from which the Secretary called the roll, be adopted as the membership list of the House, which motion was duly seconded and carried.

Dr. J. M. Frazier of Belton, then read the first report of the Reference Committee on Memorials and Resolutions, as follows:

FIRST REPORT OF THE REFERENCE COMMITTEE ON MEMORIALS AND RESOLUTIONS.

To this committee was referred the following resolution from the Dallas County Medical Society:

Whereas, the Dallas County Medical Society, the Chamber of Commerce and the citizens of Dallas, have generally expressed a desire to have the American Medical Association meet in the City of Dallas in 1926; and

Whereas, evidence of the ability of the said City of Dallas to adequately entertain this great organization is in hand, therefore be it

Resolved, that the State Medical Association of Texas, representing the medical profession of the State, join the Dallas County Medical Society in the invitation to the American Medical Association to hold its annual session for 1926 in the City of Dallas, and warmly urge the Board of Trustees and the House of Delegates of the said American Medical Association to accept the invitation.

We strongly urge the passage of this resolution.

On motion of Dr. J. W. Burns of Cuero, seconded by Dr. John S. Turner of Dallas, the resolution was unanimously adopted.

Dr. Frazier (continuing): The following from the Harris County Medical Society was referred to our committee:

"The Harris County Medical Society petitions the State Medical Association of Texas, in its Fifty-ninth Annual Session, as follows: That the State Medical Association of Texas make it a policy to urge its members to use the suffix 'M. D.' after their names, instead of the prefix 'Dr.' before their names, and also state in smaller type, 'Licensed to practice medicine in Texas' on their cards, signs and letterheads."

We recommend approval of the petition.

On motion of Dr. T. W. Buford of Minter, seconded by Dr. Foster of Minter, the motion was carried.

Dr. Frazier (continuing): Another resolution from the Harris County Medical Society:

Whereas, the House of Delegates of the Texas State Medical Association, assembled at San Antonio, Texas, at the Annual Session of 1924, passed an amendment to the By-Laws of said Association raising the annual dues of said Association from five to fifteen dollars; and

Whereas, the component societies of said Association had received no notice of such contemplated raise in dues, and were afforded no opportunity to discuss said raise in dues nor the privilege of instructing their delegates to said convention concerning their wishes; and

Whereas, this society, a component part of said Texas State Medical Association, does not believe

that the results of the so-called educational campaign justify a further expenditure of funds for the same purpose; and

Whereas, this increase in dues is a burden upon many of our members and will necessarily cause the loss from the rolls of some valued members of our society;

Therefore, the Harris County Medical Society respectfully requests and petitions that the House of Delegates at the Annual Session of the Texas State Medical Association, in convention assembled at Austin, in 1925, do rescind and revoke said amendment to the By-Laws and do fix the dues of the Texas State Medical Association at five ($5.00) dollars per annum, as per Chapter XI, Sec. 1, By-Laws State Medical Association of Texas, as follows:

"An assessment of $5.00 per capita on the membership of component county societies is hereby made the annual dues of the Association. Of this amount, not more than $2.00 shall be the subscription fee to the TEXAS STATE JOURNAL OF MEDICINE, and $1.00 shall go to the Medical Defense Fund."

We do not favor the petition and request of the Harris County Medical Society, wherein the expediency and continuance of the educational campaign is objected to. Neither do we favor the return to the $5.00 per capita dues.

The President: You have heard the report of the committee on the resolutions from the Harris County Medical Society.

Dr. W. L. Brown of El Paso: I move that we adopt the report.

Dr. A. B. Small of Dallas: I second the motion.

The President: It has been moved and seconded that the report of the Reference Committee on Memorials and Resolutions be adopted. The motion is ready for discussion.

Dr. C. C. Green of Houston: I recognize the inalienable right of every American citizen to hold his opinion on any question, and also to express it, and the opinion which I shall offer now is not only my opinion, but it is, as nearly as I have been able to determine, the crystallized opinion of the society which I represent. Since the change in the By-Laws in San Antonio last year, we have given considerable thought to this question, and I personally have studied it as well as I knew how. As I look back over the progress of scientific medicine, especially in this State during the past fifteen years, one question has continually arisen in my mind, and that is how and why were medical societies ever organized. That brings up the question of whether or not we are doing the right thing in carrying on the publicity and educational campaign; if so, of course we will have to have more dues.

Just a little word-picture, if you please: It seems to me that we can first see two of our country practitioners, who are the bone and sinew of this organization, as they come together in an honest-to-God consultation in an attempt to devise ways and means by which to bring back to life a suffering soul. They may or may not be successful. And on other occasions they meet. And each time when they get back to their own offices they realize what a help a careful discussion of this case was to them, and each discussion of a case brought out new ideas, with the result that these men decided among themselves that they might get together on certain days or nights in the month to discuss their general work and discuss conditions which are continually arising and for which they have no satisfactory diagnosis or treatment. Later, a third, a fourth and a fifth, and many others, realizing the benefits of this plan joined them, and before they knew it, a little medical society had arisen in their midst. Then methinks the influence of these men went out over the country, with the result that little sectional societies, or county societies, if you please, spring up all over the State, all of which ultimated in the organization of the State and National organizations.

So much for the "how," and I believe that every one of you realize that that is the principle upon which medical societies were originally organized. But, for what purpose? In order to become the custodians of the health of the people? In order to carry on newspaper and publicity campaigns in an effort to tell the people who are the best doctors, the advertising of the unethical doctor, the advertising of the advertising doctor? A thousand times no. But for these first principles for which these first men gathered together, to give the public better health and to stay as long as possible the hand of death, for by its touch it plants in the hearts of the loved ones left behind scars which death alone can relieve. Then comes up the question, if that is a fact, if that is the purpose of the society, where did we get this campaign? The education of the people belongs to the school, the looking after the morals belongs to the church, except as we come in contact with our individual patients, and my opinion is that every time we put an article in the paper against any cult that we are paying for an advertisement for that cult. My sincere opinion is that we are making a mistake.

I realize that I am not on the popular side of this question, but that is my honest opinion; of course, if we carry on this campaign we must necessarily increase the dues. Already in our Association there has been over ten per cent loss, according to the Secretary's report, and it would have been more but for the missionary work of those of us who wanted to have this thing thoroughly discussed here. We told our dissenting members that if they would come in this year we would put forth our best efforts to reduce the dues; and not only that, but some of those on the opposite side of the question have gone so far as to promise a reduction. By the enormous increase of last year we are already two years ahead of our budget. We had $12,000 donated before we started. Let's get back now to $5.00, where we started. Let's watch it, and I will pledge to you that if we come back here next year with a deficit, that nobody will be quicker to respond to the call for increased dues than the Harris County Medical Society. I thank you.

Dr. E. F. Cooke of Houston: There is liable to arise some confusion in consideration of this question. A portion of this report covers a petition from Harris County, which was submitted to the Reference Committee on Resolutions and Memorials, and another portion refers to a matter submitted to the Reference Committee on Amendments to the Constitution and By-Laws. We are now, I believe, discussing the part of the report pertaining to the petition. I do not believe the report of the Committee on Resolutions and Memorials regarding the dues is in order. I therefore make a substitute motion that the report of this committee be divided into two portions, that part which deals with the petition of the Harris County Medical Society regarding the educational campaign for one, and that part dealing with the question of $5.00 dues for the other, and that the latter part be considered in connection with the report of the Reference Committee which has to do with the question of dues.

Dr. H. W. Cummings of Hearne: I second the motion of the gentleman, for the reason that I don't know how to vote on the question. I want to endorse the publicity and educational campaign, or, rather,

the policy of the Association in that particular. I don't want to vote for that part of the resolution reducing the dues to $5.00. I am neither a $5.00 man nor a $15.00 man; I am a middle-of-the-roader. I want the dues set at a different figure. I think the substitute motion will clarify matters.

The substitute motion was put and carried, and that part of the report pertaining to the educational and publicity campaign was opened for discussion.

Dr. W. D. Jones of Dallas moved to adopt the recommendation of the committee pertaining to the educational and publicity campaign, and the motion was seconded by Dr. F. P. Miller of El Paso.

Dr. T. W. Buford of Minter: If we favor the Harris County Society idea we will handicap our Council and prevent further progress, by denying them the money that is required to carry on such activities. We should not do it.

Dr. Jno. T. Moore of Houston: I am a member of the Harris County Medical Society by adoption, having been transferred from Galveston. I have tried to play ball with the Harris County Society, and in many games we have played together, and we have won many victories. We are rated as one of the outstanding societies in the State, in progress in every possible line. As much as I regret to do it, I must disagree with the three delegates from Harris County Society in the matter of this publicity campaign. These gentlemen will testify that I have made the best fight that I could, and that reminds me of the story of the farmer who was selling a cow. The prospective purchaser was asking how much milk this cow would give. The farmer said he didn't know exactly, but she would do the very best she could. I believe my friends who have opposed this campaign will agree that while I wasn't able to put over a resolution of endorsement after it had been so thunderously and unanimously ordered by this House of Delegates at San Antonio, I did the best I could. The campaign was controlled by a representative committee from every part of the State, of the very best men, some conservative, some more aggressive, but altogether making a committee that everybody, it seems to me, could play ball with. Notwithstanding all of this, our brethren refused to endorse the campaign.

Let me give you just one tiny bit of history. The question of endorsing this campaign was brought before a called meeting. I attended the meeting. I was interested in seeing the campaign endorsed because I believed in it, heart and soul, and God bless your time if I have any interest in any matter pertaining to the politics of this association I do not know what it is. I am interested only in the welfare of the profession, the young man, the coming man, who is to follow in our footsteps. I may have had a selfish interest to the time my son decided that he could not see his way clear to follow me in medicine, and chose to become a chemical engineer. Now, my self interest has gone. Reference has been made to the matter of personal advertising. Nobody is in this campaign as an advertising proposition. It is an educational campaign, first, last and all the time, primarily for the doctors, that they may become the kind of doctor my friend, Dr. Green, talked about. We are all in harmony with his ideas as to what a doctor ought to be, but how in the name of reason are we going to do it without an active, militant organization? But back to the called meeting. We waited an hour and telephoned around and finally got a quorum of fifteen members. We discussed the question emphatically but in a good-natured way. I thought we had the thing won, but the vote was seven to seven, and Charley Green, who presided, as he always does, voted his sentiments. That was right. The only criticism we have to make is that after you have joined a baseball team it is your business to play ball with the team. It is the old bear story with the negro praying, "Oh Lord, if you can't help me, please don't help that bear."

Charley may agree to abide by what we decide here, and go back to Harris County, like he and our other delegates went back from the meeting at San Antonio, and instead of playing ball with the team, play on their own account, opposing every blessed thing we decided upon. I have discussed those matters with them, in the Society, out of the Society, at the lunch counter, in their cars and at every opportunity. They won't see the light; they have not played ball with the House of Delegates. They have been playing a little game on their own account. To save my life I cannot understand how a man from a society that refused to participate in the campaign, who has never heard one of the educational talks and knows very little about the general plan of the campaign, can shut his eyes and declare that the sun is not up. As I said to you in presenting the report of the Board of Trustees, I have been told by publicists of experience, that we accomplished more for the money in our educational campaign than any organization they knew anything about.

Our society believes in educating doctors, and in educating the public; it is only a question of method. They are honest in it, but as a democratic Republican (laughter), when I go into a caucus and fight with you and am out-voted, I will be blessed if I won't play ball with the party whenever they announce what they are going into. When I cannot play with the team, I am going to refuse to go in and join the team; and whenever I cannot carry out the policy this great medical profession decides upon, I am going to retire and devote myself to writing educational papers, and participate in our local affairs.

Dr. W. P. Coyle of Orange: We cannot adopt the resolution of the Harris County Medical Society condemning our servants, who have done simply what we told them to do, right or wrong. This whole question is going to be settled when we adopt our new Constitution and By-Laws. We must go over the whole thing again. I move to table.

The motion was not seconded.

Dr. T. W. Buford of Minter: I am one of those doctors from the forks of the creek, in the country, in the rural districts, of whom we have been talking. I want to hear from Joe Dildy on this subject right now. He has a paper on the subject, and I believe these doctors will be perfectly satisfied after they have heard it read.

Dr. Joe Dildy of Brownwood: Kind Friends and Fellow Physicians—I am a country doctor. A hundred dollar fee would scare me stiff. I never got but five checks in my life for a hundred dollars; that is the truth if I ever told it. I am sold to an idea, but I cannot stand up on my hind legs and make speeches unless I am given from six to ten weeks notice. A man whose heart is in the State Medical Association just simply imbibes the general atmosphere. Recently I took my pencil after the day's work was over, and sat down and wrote about this matter. If you will bear with me, I will read to you what I thought after the people's lights went out; and if I ever accumulated a dollar, I made it after the other people's lights went out. The country doctor never made a dollar except when he worked overtime. I will have to apologize to you. I know it is not customary. I know I ought to be able to stand up here and talk like Dr. John T.

Moore, but I didn't teach school in the State University for several years, and I didn't get the habit.

ADDRESS OF DR. JOE DILDY.

(Published in the Original Articles Section of this number of the JOURNAL, beginning on page 57.)

Dr. E. F. Cooke of Houston: I rise to a point of personal privilege, and I wish it understood that what I am about to say is entirely my own personal utterance and not official. It is an old saying that it is an ill bird that fouls its own nest. You have heard Dr. Moore try to convey the impression that the Harris County action was the result of a packed meeting. That is not so. I did not attend that meeting, and did not witness Dr. Moore's effort to give the light to our Society. I am glad we have got a torch-bearer, if his light is so dim that we cannot see it. He has said that there were only fifteen members present, which is a fact. He has told you that the President cast the deciding vote, which is a fact. But he has not told you that our Secretary had canvassed the membership over the telephone, and that seventy-five per cent were opposed to this public health and educational campaign; that fifteen per cent were indifferent, and ten per cent were in favor of it. Now, Mr. President, if Dr. Moore wants to play ball, let him play ball with the county society that he belongs to, and not oppose the delegates from that society.

The President: We are voting on the report of the Reference Committee on Memorials and Resolutions, which recommends that this House not favor the resolution from Harris County objecting to the publicity and educational campaign, as authorized by the 1924 House of Delegates. You are voting on the motion to adopt the committee's report.

Dr. Green: If this motion carries, then we continue to carry on the campaign?

The President: In whatever way the House may direct.

The motion was put and carried.

Dr. A. P. Howard of Houston: I move that this paper just read by Dr. Dildy be published and distributed to the medical profession of this State, in pamphlet form.

The President: I take it that you want the House to request the Board of Trustees to furnish reprints.

Dr. A. C. Scott of Temple: I second the motion.

Dr. C. C. Cody of Houston: Most physicians have heard but one side of this question, and not expressing my own sentiment at all, I think it would be good if the paper could be read before the General Session.

The motion was put and carried.

Dr. J. H. McLean of Fort Worth, then presented the first report of the Reference Committee on Scientific Work, as follows:

FIRST REPORT OF REFERENCE COMMITTEE ON SCIENTIFIC WORK.

We have carefully read the reports of the following committees: (1) Scientific Work; (2) Medical Education; (3) Hospital Standardization; (4) Cancer, and (5) Health Problems in Education, and the reports of the delegates to the Association of American Medical Colleges, and recommend the adoption of same.

The work of these committees has been time consuming and of great value to this organization, for which we feel that the Association is deeply indebted. Of particular value in the production of excellent results, is the work of the Committee on Health Problems in Education. We endorse their recommendations and give them to you for your consideration.

We direct your attention to the work of the Committee on Medical Education, which is in line with other views expressed in medical literature of recent date, regarding the time and expense consumed in acquiring a medical education. It is the opinion of your committee that the campaign to elevate the standard of medical colleges has borne fruits in such abundance that the sky has been reached, and we may now have a rebound, whereby the pendulum swings too far in the opposite direction, unless checked by our conservative efforts to wisely hold what has been gained. To this end we would recommend a plan of revision of our medical courses, whereby medical training may be completed at an earlier period in life, without crippling the thoroughness of said courses, but by avoiding overlapping of branches and waste of time incident thereto. Such a plan to be formulated and perfected by representatives of medical colleges of known efficiency and outstanding reputation, allowing for a hospital internship of one or two years, which we deem indispensable to a medical education.

In this connection, we are reminded that our sister profession of nursing, in its campaign for higher standards, is now feeling the initial symptoms of the same malady (if such it may be called), suffered by the medical profession. We therefore recommend that this body place itself on record as opposing any further attempts to lengthen the course of training for nurses, which, in our opinion, is too long at present.

We recommend that in amending the Constitution and By-Laws, steps be taken to place Obstetrics under the section of Internal Medicine and Diseases of Children, and that Gynecology be placed under the head of Surgery.

We further recommend better supervision of papers coming before the various sections, by this committee, associated with the secretary and sectional officers, before presentation.

In conclusion we wish to especially recommend for your consideration, the very efficient work done by the Committee on Cancer, and also to endorse the excellent work done by the Committee on Hospital Standardization.

J. H. MCLEAN, Chairman,
N. A. POTH,
D. L. EASTLAND,
E. D. CRUTCHFIELD,
R. B. EHLINGER.

Upon motion the report was adopted.

The President: Mr. Lorenz, the Secretary of the Southern Medical Association, is here. I understand the Association will meet in Dallas this fall. We can hear from him at this time. Mr. Secretary will you present the gentleman?

The Secretary: It gives me great pleasure to introduce to you a man who has been at the helm of the Southern Medical Association since the beginning, one who has been largely responsible for the great success of that splendid organization, Mr. C. P. Lorenz, of Birmingham, Alabama.

ADDRESS OF MR. LORENZ.

Mr. Lorenz: This is an unexpected pleasure. I had no idea of being called upon to say anything, and I haven't anything to say. I am not the speech-making end of the Southern Medical Association. I am your hired hand. I try to serve as your business representative. It is a privilege to be here. It is the first time I have had the privilege of attend-

ing one of your meetings. I have been enjoying it very much. We are expecting great things of our Texas friends in support of the Dallas meeting in November. Reports indicate that we are going to have a big attendance. There are many who say, "I have not been able to attend for a number of years, but I am going to go next year; I want to go to Texas." Lots of folks want to come to Texas, and we are figuring on having a wonderful meeting. We are expecting you to help us and stand by us, that we may put it over in a big way.

Upon motion, the House adjourned, to meet again at 8:30 a. m., Thursday, May 7, 1925.

GENERAL SESSION.

President-Elect Dr. Rosser called the General Meeting to order at 4:00 o'clock p. m., in the Roof Garden of the Stephen F. Austin Hotel.

President-Elect Rosser: I have been asked by the President to give him a little relief. We are now ready for this General Meeting. The programs, if you have them, are very explicit. The first paper, "Cancer, a Combined Lay and Medical Problem," by Dr. McGlasson, will not be read. The author is out of the city. However, Drs. Graves, Scott, Crouse and Millwee are here. We will now have Dr. Graves:

ADDRESS OF DR. M. L. GRAVES.

Dr. Graves then delivered an address on the "Diagnosis and Treatment of Cancer, Upper Right Quadrant," which will be published later.

The President-Elect: Dr. A. C. Scott will now discuss "Rational Surgery of Cancer; Its Handicaps and Its Limitations."

ADDRESS OF DR. A. C. SCOTT.

Dr. Scott then delivered an address on "Rational Surgery of Cancer; Its Handicap and Limitations," which will be published later.

The President-Elect: The next is a paper on "Cancer Treatment; a Regional Question," by Dr. Hugh Crouse, of El Paso.

ADDRESS OF DR. HUGH CROUSE.

Dr. Crouse then delivered an address on "Cancer Treatment: A Regional Question," which will be published later.

The President-Elect: Dr. Millwee will deal very largely with some of the phases which have just been covered. He is a practical x-ray therapist, as well as diagnostician.

ADDRESS OF DR. R. H. MILLWEE.

Dr. Millwee: It was my intention to present at this time three cases which I presented to the Surgical Section at Fort Worth a year ago. The patients were then well. One was a breast case, one was an eye case, and one a case of carcinoma of the tonsil. At that time they were well at the end of one and two years. I presume some of you have thought of those cases and wondered if the patients are still well. Fortunately, they are well, at the end of three and four years. These cases are only examples of what may be accomplished in that most hopeless condition, advanced, inoperable cancer. It is always a question of whether a case is surgical or radiological if it be borderline. I don't think thinking people are confused regarding the question of early cancer, as to whether it is surgical or radiological. Undoubtedly, all competent radiologists are agreed that early operable cancer is a surgical condition.

Dr. Millwee then read his paper, which will be published later.

The Secretary: I have a telegram from Dr. Bacon Saunders, one of our honored ex-presidents. The House of Delegates wired its condolence to Dr. Saunders because of his illness, which has kept him away from us, the first time such a thing has happened in many years. Dr. Saunders wires, "Though absent in body I am with you in spirit and every good wish. God be with you till we meet again."

There being no further business, the meeting stood adjourned.

Third Day, Thursday, May 7, 1925

MINUTES OF THE HOUSE OF DELEGATES.

The House of Delegates was called to order at 8:30 o'clock a. m., with President Dr. Bledsoe in the Chair.

The Secretary called the roll and announced that eighty-five members were present, constituting a quorum.

The President: There being a quorum present, the House is ready for business. You have been very courteous to me this week, and have expedited matters as much as possible. This morning there is much to do. Let us cut discussions as short as we can, be just as clear and to the point as we can, and please be as patient with the Chair as you can.

Dr. W. L. Brown of El Paso, introduced resolutions endorsing the American Association for Medical Progress, formerly friends of Medical Progress, which were referred to the Reference Committee on Memorials and Resolutions.

Dr. Joe Gilbert of Austin, introduced a resolution from the Board of Councilors pertaining to a publication known as the "Medical Record and Annals," which was referred to the Reference Committee on Reports of Officers and Committees.

Dr. J. N. White of Texarkana, then read the first report of the Reference Committee on Reports of Officers and Committees, as follows:

FIRST REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND COMMITTEES.

We have carefully read the printed and written reports referred to us, and have invited and gladly received verbal reports, complaints and information.

The Secretary's report is full, clear and instructive, as it always is. We would especially request the careful reading of this report.

We also commend the report of the Board of Councilors, and ask a careful reading of same.

The report of the Council on Legislation and Public Instruction is very full. It is an excellent and well written report. Our committee wants the State Medical Association to advise and encourage component county societies to appoint committees, the duties of which will be: (1) To try to discourage church papers of the State from carrying flagrantly false advertisements, which are calculated to mislead their readers in seeking medical advice or buying medicine; (2) to go before Advertising Clubs and try to show that many of the ads carried by the lay press are false and, therefore, not honest, truthful advertising. We mention especially chiropractic display ads. If necessary let this committee offer the cards of members of county societies instead, advertising the fact that they are legally qualified to practice medicine. We would urge the approval of the five special recommendations with which the committee closes its report.

The report of the Committee on Compensation and Health Insurance is especially good, but our Committee begs to offer the following suggestions: That since it is the disposition of some contractors and construction companies to insist on their employes calling some particular doctor, and making them believe that this doctor is the only one allowed by law to treat the case; as a matter of fact, any legally qualified doctor has the right to treat such cases, and the public should be informed that no one doctor has a corner on such work.

All other reports are excellent, but we have no further suggestions to make.

Respectfully submitted,

J. N. White, Chairman,
V. R. Hurst,
D. M. Higgins,
John W. Burns,
S. P. Vineyard.

The President: There should be a correction in the recommendation on compensation. The law says the insurance company has the right to name the doctor.

Dr. W. P. Coyle of Orange: I move to amend the motion so as to strike out the clause pertaining to the employment of physicians generally, at the expense of the insurance company. The insurance company must pay the bill regardless of what the indemnity is. If their selection is not good, there is recourse under the law.

Upon motion, the report, as amended, was adopted.

The President: Has the Credentials Committee anything to report?

Third Report of Reference Committee on Credentials.

Dr. Morrison: Mr. Chairman, Gentlemen—The Credentials Committee has checked all certificates presented and handed the list of the Secretary, from which list the roll was called a moment ago.

Upon motion, duly seconded, the list thus presented, was approved.

Dr. J. M. Frazier of Belton, then read the second report of the Reference Committee on Memorials and Resolutions, as follows:

Second Report of Reference Committee on Memorials and Resolutions.

We recommend approval of the following resolution, introduced by Dr. W. L. Brown of El Paso:

Whereas, the American Association for Medical Progress, formerly Friends of Medical Progress, has for its purposes primarily the education of the lay public in the methods and results of modern biological, physiological and pathological research, with a view to developing an attitude on the part of the public of appreciation of such research and the results therefrom; and

Whereas, there are those who either for hire or because of a misapplied sentimentality, seek to discredit and inhibit by law and public opinion, the necessary investigations upon the living animal, holding that such practices are inhuman and hurtful; and

Whereas, we, in common with educated physicians and laymen who are informed on such matters, know beyond peradventure of a doubt that animal experimentation is essential to progress of science in its effort to prevent disease, and that where practiced properly there is no suffering, not as much, in fact, as is daily occasioned in the slaughter of animals for food; therefore be it

Resolved, that the State Medical Association of Texas, in annual session assembled, after due deliberation, reaffirms its advocacy of animal experimentation, or vivisection, so-called, where practiced under modern conditions, and that the aforesaid American Association for Medical Progress is hereby assured of our appreciation and sympathy, and that every assistance will be forthcoming in any movement hereafter to be made looking to the organization of branches of the said American Association for Medical Progress, in this State.

Respectfully submitted,

J. M. Frazier, Chairman,
J. J. Terrill,
J. B. Swonger.

Dr. A. P. Howard then presented resolutions pertaining to the tax under the Harrison narcotic law, which resolutions were referred to the Reference Committee on Memorials and Resolutions.

Dr. A. P. Howard of Houston, introduced a resolution pertaining to credits on income tax assessment on physicians, which resolution was referred to the Reference Committee on Memorials and Resolutions.

Dr. W. N. Wardlaw of Childress, then read the first report of the Reference Committee on Finance, as follows:

First Report of the Reference Committee on Finance.

We find that the financial report of the Board of Trustees shows total assets of $81,141.17, and total available reserve of $38,711.32, the balance not going to the reserve until the end of the present fiscal year.

We commend the President's report as read yesterday, also the report of the Board of Trustees, and the plan of the President's budget system leads us to believe that not less than $10.00 annual dues will be sufficient to carry out our plans adequately, and that the dues should be divided as recommended by the Board of Trustees in its budget, and setting aside $2.50 for the Journal. We therefore recommend that these matters be ratified as advised.

This recommendation covers that portion of the Harris County Society resolution requesting a reduction of dues.

Respectfully submitted,

C. R. Hannah, Chairman,
W. T. Dunning,
Luther Kusch,
A. C. DeLong,
W. N. Wardlaw.

Dr. C. C. Cody of Houston, moved to amend the report by changing $10.00 to $5.00, with reference to dues. The motion was seconded by Dr. C. M. Hall of Hamilton.

Dr. E. F. Cooke of Houston: You will understand, of course, that we delegates from Harris County come before you instructed by our society. The fundamental unit of the State Association is the county society. Loyalty to the State Association begins with loyalty to the county society, and we would be disloyal to our county society if we did not fight to carry out our instructions with every atom of power that we have in us. It is not a question of our personal views on this. We are not elected to this position on that account; in fact, I personally was not present at the meeting at which I was elected a delegate to this House.

We have thought this matter over, as have a great many gentlemen present, for a year. We think we have seen evil results arising from the increase in our dues. Our friends tell of instructions issued at a meeting at which only fifteen members were

present. There was a second meeting, with from 62 to 75 members present, and these instructions were reiterated.

We feel that the proponents of increased dues have a wrong view of the proper activities of this Association. It is true that our activities have expanded to a point where more money is required, but we think they have expanded too much; that we are getting away from the scientific purposes of the organization and going into matters with which we have no concern. There has been a surplus year after year during the most expensive years that we are likely to face, on dues of $5.00, and we feel that this amount is ample, especially in view of the probable decrease of costs in all lines that will come after this period of inflation has passed, and it is rapidly passing. There is also another thing that we have to guard against; we have heard grumbling all over the State, and it is my personal view that there is a great deal of dissension and strife in the State Association. Many of our members might be called merely nominal members. They are holding their membership because the county society at the present time represents the best in medicine. In Harris County, as a concrete instance with which I am fully acquainted, we know that we have held our membership in line simply because the hospitals in Harris County will not admit them to their visiting staffs unless they are members of the Harris County Medical Society, and all doctors desire the privilege of being on the visiting staffs of the hospitals. It is essential to the practice of their profession in a city like ours that they shall be on their visiting staff. However, if you continue the present policy, and I am speaking merely in reference to the matter of dues, such as these are going to drop out of our county societies, and if the county society fails to represent all of the best that is in the county, then the dropping of members will be far more rapid than it has been so far this year. Harris County has had the greatest difficulty in holding its members in line, and inducing them to pay the dues for this year. We have held them in line with this hospital whip, if you please, and upon the plea that the House of Delegates would very materially reduce the dues this year. Suppose that 25 or 30 per cent of the Harris County Medical Society drop out, could we any longer hold the hospital whip over our members? The hospitals would be required, in self defense, to take members on their visiting staffs who were not members of the county medical society; we would lose our hold on the hospitals.

Some of us argue that our members pay $100.00 a year dues to a golf club and never think anything of it; they pay this, that and the other dues to other institutions and not think anything of it. I want to call attention to the fact that the man who pays $100.00 a year to his country club is getting something out of it, and as a matter of fact, the optimistic views of our officers notwithstanding, our members in the sticks, the great majority of the members of this profession, do not get a great deal out of organized medicine. They may not come up here in the House of Delegates and say it, but they will tell you so in private conversation. They also said that I had more nerve than sense. I have talked with lots of members who are simply staying in the society, and don't think they are getting their money's worth even at $5.00. The question before us is a question of dues. I personally do not care whether it is $10.00 or $15.00, but there are hundreds of others who do, and while it is true that a membership of 6,000 members at $5.00 would cause a little increased expense in the publication and distribution of the JOURNAL, still 6,000 members at $5.00 is $30,000.00, and 3,000 members at $10.00 is $30,000, and we would have vastly more influence with more members and less dues, than we would with fewer members and more money in the treasury.

Dr. A. C. Scott of Temple: This question is one of such vital importance that it occurs to me that it ought to be discussed a bit further, and for my part I want to hear the last word that those Houston fellows can say against the work that has been done by the House of Delegates and its Council on Public Education. Drs. Cooke, Green and Cody, have said that the purposes of this Association were scientific only. I am surprised that gentlemen of such intelligence, and they are all intelligent men, I have known them for a long while, should come up here and try to tell us that the only work we have to do is to promote the science of medicine by conferences among doctors. Permit me to read just a sentence or two from our Constitution, which you are now about to readopt without any change, in all probability. If you are going to adopt their ideas, then you must strike out something like half of Article I, Section 2 of your Constitution. This article says, "Advance medical science," we all agree to that; "To elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws." If this committee has not been busy at that day and night since we adjourned last year, then you may take my head for a football. The further purpose of this organization is "to promote friendly intercourse among physicians." We have worked at that day and night. "To guard and foster the material interests of its members." Gentlemen, that is just as much your duty as it is to promote the science of medicine in this organization. If your committee has not worked faithfully and hard at that job, then you can take my resignation right now, and I won't appear in this House of Delegates any more. "To protect against imposition." How are you going to protect against imposition if you stay at home and follow the advice of the Harris County Medical Society leaders? They don't say it to you particularly, but they tell others through their little periodical, that the State Medical Association is run by a clique, who perpetuate themselves in office, and all that sort of stuff. That charge is made against you, gentlemen, as well as those of us who hold office. "To enlighten and direct public opinion in regard to the problems of State Medicine." "So that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease." How under heaven are you going to teach the prevention of disease when you go about it like a secret society? Can you teach the public anything without the use of the press? How can you teach them anything when such periodicals as *Physical Culture* are sold daily upon our news stands? You never see a copy of *Hygeia* there. How many of this Houston group have been circulating *Hygeia* over the State, to teach the people how to prevent disease? The House of Delegates last year appointed a Committee of Twelve, and directed them to carry on a public educational campaign. I want to say, as a member of that committee, that we got together and worked long and hard. They didn't agree with each other, of course. They had no precedent by which they might be governed. No such big task had ever been undertaken before, that they knew anything about. We had to educate the doctors at home and the public at the same time. And in our effort, without any previous experience, we disagreed, of course. I had a different plan altogether from that finally adopted. I am free to confess that I still think it a good plan, but it was not adopted. I had an idea that we could go out here and employ about a half a dozen doctors and nurses, or perhaps laymen, and get some good

lawyers who were well educated, to carry on our propaganda and go over this State and concentrate on certain counties, much like the Government has done on tick eradication, and straighten up these counties one at a time. I didn't get out with a lot of propaganda when they didn't adopt my plan. I did the best I could; the committee did the best it could, and we got by with a good deal of work. Was it appreciated? Not by the Harris County rulers, not at all.

Dr. H. W. Cummings of Hearne: To begin with, I am going to vote against the motion to amend the resolution, but I am not doing it because I think the maker of the motion has not a right to have his ideas and present them for reasonable discussion in this House of Delegates. It is not a question of whether it is $5.00, or $15.00, or $10.00, so much, that comes out of the individual's pocket; it is a question of a principle. I think probably $5.00 is not enough for this Association to tax its members. I think $15.00 is too much. I do think that $10.00 is a reasonable amount, if properly used. I disagree with the gentleman so far as the question of the educational and publicity campaign is concerned. I am not going to discuss that because that is not properly at issue at this time, although it is involved. Being a member of that Council, I may say that the work we have done so far has been very unsatisfactory to the Council itself. We are new in the work; it is a thing that it takes time to plan and organize without making mistakes. We have probably cost more than we have been worth, but there never has been an organization started out in a new field and undertook work of that kind that didn't make mistakes or spend money unnecessarily or unwisely. I will state that so far as I am personally concerned, I have never put in a bill for expenses in my life. None of that money has come to me. Our purpose is not only to get together and study scientific medicine, but to bring the profession together and make us as a concrete body, useful to the State of Texas in the way of propagating health laws and health information to the public generally. Just how to do that is where the rub comes. I believe that the Harris County Medical Society believes in that as a principle. It is probably our method that they object to. I would rather this Association would take in less money and have more members, than to take more money and have less members. In order to do that and hold every member and perpetuate his loyalty, we must make him know and feel that he is a member and has a part in our work.

Dr. Thomas H. Cobble of Rusk: No one knows how disgruntled members feel better than the county society secretary. We have lost 50 per cent of our members, practically, and 50 per cent of those who have paid their dues have paid them with a gentle cussing for the county secretary, and a request that he in turn cuss the State Secretary—but he didn't do it.

Dr. N. D. Buie of Marlin: A few years ago I was elected President of the Ex-Students Association of old Sam Houston College. I drove to Huntsville five or six times every year, to keep up the activities of the student body. Some fellow said, he didn't know whether I made so much of a president, but the job had certainly made a good jitney driver out of me. Being Councilor of the Twelfth District has made the best jitney driver out of me you ever saw. On many days this past year I have driven that old car of mine 300 miles in the interest of the State Medical Association. I would go where the road ceases to be a road and becomes a trail, and meet five or six country doctors. On one occasion we were a bit late; Dr. Rice was with me. Five doctors, the best citizenship of the county, had voted unanimously to surrender their charter to Holman Taylor and cuss out Bledsoe for everything on the face of the earth. After we got through talking to those fellows we sent Holman Taylor $80.00. I have one of them sitting here, a typical country doctor, and a scholar; he represents Hamilton County. They dared Bledsoe to go to Hamilton County. Holman Taylor would have been mobbed if he had gone out there. It took me three months to get up my nerve to go there. The society had voted unanimously to surrender the charter, cuss out the State Association and quit. I sneaked around out there, not telling them that I was Councilor, for about an hour before I got up nerve enough to talk. Then we talked the thing out, and the crowd voted unanimously to pay the dues. Hall himself said if there was a man out there who didn't pay, he would pay for him. McLennan County has a city of 60,000 in it; the society paid these dues, but at the bottom of the statement they sent out finally appeared the following: "We pay our dues, but we protest; we don't believe in the dues like they stand." I paid $100.00 to the educational campaign; I stand ready to pay $500.00 now if any ten men in this Association will join me in it, but I represent the Twelfth Councilor District of this State Association, and I cannot go back to the Twelfth District and face those fellows until we reduce the dues. My district is not for dues over the amount we had three or four years ago. I know that to be a fact, because I have talked to every one of them; I know what they are going to say when I go back down there. They feel like we got all heated up and fussed up and went off half-cocked and put over something on them last year. I got up in this House of Delegates last year and said if any member in my district didn't pay his dues because he was too poor, I would pay them for him. There isn't a man who refused to pay his dues because he was too poor; it was because he objected to the principle of the thing. I promised those fellows that I would come down here and make this talk. I believe we have enough money to run this thing another year without any dues at all. Let the people get their backbones straightened any way they want to. The delegates from those counties didn't talk last year. I did a lot of talking, and I talked for the raise in dues, but we are talking on a different proposition this year, and Bledsoe has 900 gray hairs more this year than he had last year, just because the dues are so high. He was talking pretty weak the other morning; it wasn't influenza. I am not against the educational campaign, but I think the most important thing we can do is to go back home—if there is any raise in these dues above the normal.

Dr. F. R. Winn of Angleton: If we go back home without a full, free discussion of this matter and not have it definitely and amicably settled, we are going to come nearer disrupting the State Medical Association than ever before. This House of Delegates must quit thinking it is the State Medical Association. It is the central group around which revolves the State Medical Association, and just as long as the forces of this central group are centripetal it will succeed, but as soon as they become centrifugal it is going to go to pieces. I also want to say that the Harris County Medical Society is not the State Medical Association, nor is any one of these other big counties the State Medical Association. If they do have the most to say and do the most talking, they contribute less influence to the maintenance of the standard of the doctors of this State than any other bodies do. If you will go into the country villages and the country towns, where we live closer to our people, are their neighbor and their friend, and they believe in us and trust us

because they have spent the long hours of the night at the bedside with us over their dear ones, you will see a different influence than you see in the city, where you send patients off to the hospital and tell the family every day they are getting along nicely. We not only direct the patient, we direct the family and the neighbor. You will find a greater respect for the practice of medicine and the profession of medicine in rural communities than you will find in the cities. We are not annoyed and worried with cultists.

I opposed this thing last year at San Antonio, because I thought there was no good to come of it; I knew those in control were not the ones qualified to put on a publicity campaign; but when it carried I said to Dr. Scott, who was then president and who was directing the movement, to Dr. John T. Moore, Chairman of the Board of Trustees, and Dr. M. F. Bledsoe, President-Elect, "I am not going to sulk in my tent, I am going back home, and I am going to come back here next year with all the members of my medical society paid up, and I am going to help you in every way that I can, but I want to see what the results are, and if the results are not satisfactory I am going to oppose it again." And I want to say to you now that if we have paid $13,000.00 for the good that has been done in this campaign, we have paid $12,999.00 too much. A paper read on this floor yesterday by Dr. Joe Dildy of Brownwood, was the best paper ever read before a medical society. I charge that the Council on Legislation and Public Instruction is opposed to publicity. If they are not opposed to publicity, why will they not give Dr. Dildy's paper to the lay press and let everybody in the State read it? They say put it in the medical journal and let the doctors read it. What good does it do to educate a lot of doctors about publicity; a doctor is afraid in his own home town to let his name get in the paper; he is afraid to get up before the high school to make a talk because his county society will censure him; and you will get up here in the House of Delegates and give him the devil about it. Yet they say to him, "give us $15.00 a year and we will put over a publicity campaign." Now, I will tell you frankly, but preface my remarks by saying, as diplomats do in their correspondence, after tearing their shirts off, "I conclude with the highest personal esteem." I want to preface my remarks "with the highest personal esteem." If these gentlemen who have been out in the State making speeches in this campaign had to rent a hall and charge admission, they couldn't pay for the lights. It is with the greatest difficulty that you could get a few doctors, their wives and children and the school teachers, out to hear them. And where I helped to get up a crowd I have been glad there wasn't anybody else there. I have traveled 500 miles to hear one of these gentlemen in a scientific discussion; I will help to pay the railroad fare of any of them to my county society for a scientific discussion, but it is the most painful thing in the world to hear them try to make speeches and influence the public. In our district there has never been one single line of this publicity campaign, and nobody in my district has ever seen it. I went to one of the Board of Trustees, the man at whose knees I have worshipped for 17 years, since I have been a member of this House of Delegates, and said to him, "Doctor, what about this publicity campaign. The year is almost over and we have heard nothing about it, have they abandoned it?" He said, "No, Harris County decided to do it in another way." Well, what in the world did Harris County have to do with us? I didn't live in Harris County, I was from Brazoria County. We wanted this campaign put on in our county, but because a big county overshadowed us we could not have it, so we just put on a campaign of our own, and were afraid to let anybody know anything about it; we were afraid they would expel us from the medical society.

I told my people when we paid this $15.00 that we didn't get value received, and that I was going to make a fight for a reduction to the former amount. However, if you make it $15.00 or $10.00, I am going back and say that we decided that was the fee that should be charged, and we are going to continue to pay it; but I don't believe this body can afford to lose ten per cent of its membership each year. I believe that next year, instead of a ten per cent, the loss will be forty per cent, and a bunch of radicals and insurgents will spring up and attempt the organization of another body, and then you have got the devil to pay. Our treasury shows a big surplus, some $39,000.00. What in the name of God does a medical society want with a big surplus? We are not going to buy any big building; we are not going to store any oil in tanks. We don't need that big surplus; let's run on $5.00 this year, and if that surplus falls down and we need more money, and if this publicity committee will show some action, if they will do some publicity beside that which originates in their own mind, or which they censor and put out, that is worth the money, why we can come back next year and raise the dues. But you cannot ask a county society that has never heard a word of this campaign to do it and keep them in good humor always. I think Dr. Buie was right; he has ridden over his territory and he knows the difficulties. You know, all of you who live in the country, the difficulty in keeping a county society together with any dues. I would rather all of this surplus be used in the next two years than to see one county society fall out of this Association.

Dr. T. W. Buford of Minter: Some of these fellows are going to shift the onus for the reduction of dues to the country doctor; the movement didn't start there. I know my district will be perfectly satisfied with $10.00; the country doctors are satisfied to pay $2.50 for the JOURNAL. They don't like the $15.00; they don't like the $5.00. They want to use this money judiciously. This $5.00 and $15.00 business reminds me of the story of the fellow who sold rabbit sausage. It was good sausage, and the first thing he knew he couldn't get enough rabbits, and he began to adulterate it with horse flesh. He was finally arrested for adulteration, and the Judge asked him, "Did you do that?" "Yes, sir." "How did you mix it?" "Fifty-fifty." The judge said, "What do you mean by 'fifty-fifty?'" The fellow replied, "One rabbit and one horse." Any family doctor like Joe Dildy or myself will go fifty-fifty. The $15.00 fellows have come down 33⅓ per cent. Let the $5.00 fellows come up 33 1/3 per cent, and make it $10.00.

Dr. C. C. Green of Houston: I hold absolutely no animus for a single member of this Association, despite the fact that there are some here whom we have fought up and down for the last two years. I am prompted by two motives. First, I am championing the cause of the medical society that sent me here with instructions; and, second, I believe I am right in my contention. I have watched carefully the progress of this campaign, despite the fact that it has not been carried on in my county. I was riding on the train one day and a man picked up one of the papers and referred to a paid advertisement, and said, "I don't know who you are, but I see the doctors are telling us what wonderful fellows they are." That is what I object to, I object to the method. Harris County Medical Society is absolutely in favor of educating the public, and I challenge any

man to show us where they have done anything else than that.

By raising the dues to $15.00 last year, we jumped three years ahead of our regular schedule of finances. We have a comfortable surplus. If you will put the dues back to the normal five dollars and let us go back and say to our people that the House of Delegates didn't mean to railroad them last year, because that is the impression all over the country, they will be willing to give us a fair show; if a deficit is created they will be willing to raise the dues to any amount necessary. And that is all we want. But I do feel that there is danger of letting out enough members to start an outlaw society. In addition to that we are going to force out of the society the very members who need the guiding influence of this kind of organization. When they do get out they will demand the right to practice in the hospitals, because they are just as good men as we have in our Association. The situation reminds me of what my poor old mother used to say when all four of her boys got to fighting at the same time. She would grab one of us by the neck and while she was laying the lash on she would say, "I may not make you perfect, but I will slow you up a little." While we may not make this Association perfect we may slow it up a little.

Dr. J. T. Horton of Quanah: I represent Hardeman and Cottle Counties. Last year we had 22 members in the two counties. We have gained three members and lost two; we are one member ahead of last year. Not one of those members has ever kicked on the $15.00. I am like Dr. Cummings, I am in favor of the $10.00, and I don't think this Association should let the quacks come in and take possession of the practice of medicine. I am a Democrat; I am in favor of a majority of this Association ruling. I believe this thing is like the man in my town last fall who had a cow that came fresh and he wanted to sell her. He wrote out a little advertisement, "Cow for sale." His daughter, who was taking drawing lessons, said, "Papa, let me draw the picture of the cow," and he said, "All right." The daughter drew a picture that looked very much like Horlick's Malted Milk cow, and we all know what advertising has done for malted milk; and you cannot advertise, gentlemen, unless you have money to do it with. The old gentleman took the advertisement down and tacked it up on his door. In a few minutes two boys came along and read the advertisement. One of them wrote, "She has got a spoiled tit." The next one made it two spoiled tits. The State Medical Association may be likened to the spine of the cow. The next fellow said, "I know what is the matter with the cow. There are two dislocated vertebrae, and those two tits, of course, are supplied by nerves pressed on by those vertebrae. Harris County Society represents the dislocated vertebrae; or, may be, they have been sucking these two spoiled tits all this last year. If they keep on, these $5.00 fellows will spoil the whole thing, and our publicity plans will go to the wind.

Dr. C. C. Cody of Houston: I think there is some confusion here. We are discussing whether Harris County will take a whipping or whether we shall proceed on the publicity campaign that has already cost the State Association some ten per cent of its members. Harris County is perfectly willing to take the whipping; we have been taking it with good grace; we took it last year, but that is not the point. It will not benefit the State Medical Association to heap abuse on Harris County. We have good, tough hides and can take it, and if the truth were known have taken it with a good deal better grace than the other gentlemen would have taken it if the circumstances were reversed. It makes no difference whether the dues are $10.00, $5.00, $15.00 or $20.00. We are discussing the question of making this a financial organization, which it is not. It is not an educational organization. We say, "Dr." Jones. What does that mean? It means teacher Jones. Is Harris County opposed to that? By no manner of means. All of our doctors are educators. We take pride and pleasure in it. This advertising that we have boasted of here as a new thing has been tried over and over and over again, and any of you who doubt it should read Garrison's History of Medicine. It has always lead to the commercialization of medicine. There is a place to teach people modern medicine; a place where they are willing to learn, and where have you apt pupils, passionate for learning? At the fireside, in the family and among the friends of sick relatives and friends.

Now, as to what the dues should be. If you make them $25.00 or $50.00 a year, all who are in this house, and, if I may be pardoned, also the Harris County representatives, will pay. But we are not considering ourselves. We are talking about the members back home, who would just as soon be out of the society as in it. Already this raise in dues has cost ten per cent of your members; we have lost over 300 educational institutions in Texas. You have heard a councilor, and others, say that unless these dues are reduced to a certain figure that we will lose more. Which is better for us? The best advertising on the face of earth is advertising by word of mouth; if you do not believe that, ask any advertising man and he will tell you so. We should adopt such a policy that the question of dues will be a matter of secondary consideration. We cannot tell exactly, nor can anyone else tell, what the profits from this year's operations will be. There is now the sum of $81,000, less the unearned surplus, in the hands of the Treasurer. If we take out the expense of operating this Association for next year, what is left will be the surplus for 1926. Approximately $5.00 per member is going into the surplus for the past year. The Harris County Society has asked that you use the $5.00 surplus that you have and $5.00 additional, which will make you $10.00; and that is all.

Dr. W. B. Russ of San Antonio: We have gotten entirely away from the question, have strayed away from the question and have never gotten back on the question. I beg to differ with the gentlemen from Harris County. This is a question of dues, nothing else; it is not a question of whether we who carried on the publicity campaign are what these gentlemen think we are, ignoramuses or worse. It is not a question of whether the problem of the country doctor who has come to live in the city is different from the country doctor who lives at home and controls his patients. I agree with Dr. Wynn that the country doctor does that, but that is a matter for another time and another place. The question before us today is whether or not we require $10.00 dues instead of $15.00, or instead of $5.00. I would love to discuss these other questions. They are much more interesting and I feel better qualified to discuss them. I agree that the country doctor is the backbone of the medical profession; he is the man who has the love and confidence of the public, but our country doctors at present, and their sons, are forced to live in communities where there is such an adverse opinion in regard to the practice of medicine that, as Dr. Wynn said, when we call a meeting no one comes out but the doctors, their friends, and a few school teachers. But when a chiropractor or any other kind of ignoramus who is spreading the doctrine that all we are talking

about is bunk, shows up he can get an audience; he can preach in the church. The preacher will introduce him, and apologize for him, and when you get him arrested, who goes down to the court two or three times to discredit everything that a doctor has to say about scientific medicine in the prosecution of that man? I will tell you who does it, it is the public who fails to come to listen to us when we go to talk to them. Whenever in our ignorance we assume that we are right and don't have to tell anybody about it and the quack gets busy and starts his propaganda, and the rumor spreads when you give a dose of horse serum that you are giving your patient syphilis, enough of the people will believe it to hurt. And enough of the people are rapidly coming to believe that the medical profession is always wrong and the quacks always right; and when enough of them believe that, you will have nothing to debate, and your scientific sessions can be held in your back rooms while your families starve in the front room, and don't you forget it.

The President: The Secretary will state the question as it is to be voted upon.

The Secretary: The Reference Committee recommends as follows: "We commend the President's report as read yesterday in your hearing, and also the report of the Board of Trustees, and the President's budget, which leads us to believe that not less than $10.00 annual dues will suffice to carry out our plans adequately, divided as recommended by the Board of Trustees, setting aside $2.50 for the JOURNAL. We therefore recommend that these matters be ratified as advised." There is an amendment pending which would do away with that recommendation and place the dues at $5.00, and it is that amendment that we are voting on.

Upon motion of Dr. C. A. Gray of Bonham, seconded by Dr. C. C. Cody of Houston, a roll call was ordered. Whereupon the roll was called, with the following results:

Yea.—Angelina, F. A. Taylor; Brazoria, F. R. Winn; Cherokee, Thos. H. Cobble; Eastland, E. F. Blackwell; Ellis, S. H. Watson; Fannin, C. A. Gray; Fisher-Stonewall, W. W. Callan; Hamilton, C. M. Hall; Harris, C. C. Green, C. C. Cody, E. F. Cook; Johnson, J. D. Osborn; Lampasas, O. A. Kirby; Van Zandt, D. Leon Sanders; Webb, J. A. Simpson; Wharton-Jackson, G. L. Davidson.

Nay.—Austin, O. E. Steck; Bell, J. M. Frazier; Bexar, J. W. Goode, R. E. Bowen, Minnie C. O'Brien; Bowie, J. N. White; Brown, W. B. Anderson; Burleson, E. W. Stark; Caldwell, Edgar Smith; Cass, A. E. Starnes; Childress-C-D-H, W. N. Wardlaw; Coleman, R. R. Lovelady; Cooke, D. M. Higgins; Dallas, C. R. Hannah, E. H. Cary, J. J. Terrill; DeWitt, J. W. Burns; Falls, S. P. Rice; Fort Bend, J. W. Boyle; Freestone, W. McFadin; Galveston, E. D. Crutchfield; Gonzales, W. T. Dunning; Grayson, M. M. Morrison; Guadalupe, N. A. Poth; Hardeman-Cottle, J. T. Horton; Henderson, L. L. Cockrell; Hidalgo, J. G. Harrison; Hopkins, W. E. Conner; Jefferson, J. E. Swonger; Kerr-Kendall, J. E. McDonald; Kleberg, C. P. Yeager; Knox-Haskell, A. A. Smith; Lamar, T. W. Buford; LaSalle-Frio-D-McM., B. E. Puckett; Lee, J. M. Johnson; Limestone, J. B. Barnett; Medina-Uvalde-M. V. V.-E. R., S. B. Hudson; Milam, G. B. Taylor; Montgomery, C. M. Covington; Orange, W. P. Coyle; Potter, S. P. Vineyard: Reeves-Ward-Pecos, Jim Camp; Runnels, J. W. Blasdell; Rusk, C. A. Dawson; San Saba, A. D. Nelson; Smith, Edgar H. Vaughn; Stephens, C. D. Cupp; Tarrant, J. H. McLean, Edwin Davis; Tom Green, A. C. DeLong; Travis, C. W. Goddard; Victoria-Calhoun, A. D. Gibson; Walker, H. S. Robertson; Washington, Luther Kusch; Williamson, C. C. Foster; Wise, T. G. Rogers; Wood, R. H. Coleman; Secretary, Holman Taylor; Treasurer, K. H. Beall; Trustees, John T. Moore, M. L. Graves, W. R. Thompson, W. B. Russ, J. S. Turner; Council on Medical Defense, W. D. Jones, F. P. Miller, A. P. Howard; Councilors, W. L. Brown, P. C. Coleman, A. F. Lumpkin, Joe E. Dildy, C. S. Venable, F. U. Painter, Joe Gilbert, O. S. McMullen, W. B. Thorning, D. S. Wier, J. H. Caton, J. K. Smith; Council on Legislation and Public Instruction, C. M. Rosser, I. C. Chase, H. W. Cummings, A. A. Ross, A. C. Scott, Joe Becton, S. E. Thompson, A. F. Beverly.

The Secretary: Mr. President, there are 105 accredited members of the House of Delegates. Of these, 88 voted "No," and 17 voted "Yes."

The President: I therefore declare the amendment lost. We are now voting on the report of the Reference Committee on Finance. This report recommends setting our dues at $10.00. All in favor of the report let it be known by saying "Aye." All opposed "No." The "Ayes" have it, and the report is adopted.

Dr. J. N. White of Texarkana, then presented the second report of the Reference Committee on Reports of Officers and Committees, as follows:

SECOND REPORT REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND COMMITTEES.

We endorse the following resolution offered by the Board of Councilors:

"*Whereas*, there is published monthly in San Antonio, a medical journal called *The Medical Record And Annals*, which represents itself to be the official organ of the South Texas District Medical Society, the Southwest Texas District Medical Society, and the Seventh District Medical Society; and

"*Whereas*, this journal by publication on its title page of the name of the State Medical Association of Texas and the officers of that organization, implies that it is affiliated with the State Medical Association of Texas; and

"*Whereas*, the editorial pages of this journal have published obnoxious criticisms of the officers of the State Medical Association of Texas, and have opposed the established policies, which procedures have had a tendency to diminish the success of our educational campaign; therefore be it

"*Resolved*, that in the opinion of the Board of Councilors this journal has been disloyal to the best interests of the organized profession of Texas; and be it further

"*Resolved*, that the Board of Councilors call upon the various societies represented by this organ to either control its editorial policy or take steps to sever their relations with the publication."

Respectfully submitted,

J. N. WHITE, Chairman,
D. M. HIGGINGS,
S. P. VINEYARD,
J. W. BURNS.

Dr. John W. Burns of Cuero: In making this report your committee recognized that wholesome criticism is always a valuable asset to any institution. You have heard it said that the real friend is one who can correct a fault as well as commend a virtue. This House of Delegates is the law making body of this society, and it is just as democratic as any organization in the country. This House is responsible for the policies of this Association, and the members, officers, Board of Trustees, Board of Councilors, are creatures of the Association, elected by the democratic vote of the Association. A dis-

trict society is a component part of this great Association, just as much so as the county society. We think we can do but one thing, uphold the Association, the authority lawfully vested in its officers. There should be loyalty through all of its different ramifications. There is no man in our State whom I regard more highly than I do Dr. Cody. I loved his father, as did all who had the pleasure and honor of knowing him, but I think he has been just a bit too radical; his criticisms a bit too strong. In our district we contribute 50 cents per capita of membership in support of this publication, of which Dr. Cody is one of the editors, and his editorials are not in harmony with our principles and policies.

Dr. E. F. Cooke of Houston: I move that the report be rejected.

Dr. C. C. Green of Houston, seconded the motion.

Dr. D. M. Higgins of Gainesville: As one of the committeemen, I want to say, personally, that I think part of those editorials, possibly in the main, were good, wholesome, constructive criticisms, and while I do not know the personal feelings of the gentlemen of this journal, and the people whom it represents, there were some things this committee felt had best been left unsaid. We are not condemning the journal and we are not condemning its editors, but we do feel that our district societies ought to work in harmony with us, and as the societies which this journal represents are assessed 50 cents per capita for subscription, we felt like we ought to make the recommendations we made.

Dr. C. C. Green of Houston: I feel that I must contend for what is right. The criticisms voiced by Dr. Cody are those of the editor and not of the journal he edits. He has criticised some who have been taxed 50 cents to pay for the space in which to be criticised. There is a definite analogy between that and the criticisms which have been offered by members of the Board of Trustees and of the Board of Councilors, against my society, which has been taxed $15.00 per capita to take care of activities we do not approve of. So long as criticism is gentlemanly, which that complained of is, it is proper, either in the columns of a medical journal or on the floor of this House. I defy any man to say that Dr. Cody has done otherwise; and I extend to the gentlemen who have criticised us the same courtesy we thus demand of them. We should always be glad to have just criticisms. There have been just as severe criticisms of us in our STATE JOURNAL. I ask you to be fair, and that is all I ask. Our criticisms have been open and above board, and, I think, just.

Dr. C. M. Hall of Hico: I have ridden with you thus far against three of the noblest and finest fellows here, and they know I think I am right, just as I did when I thought with them, but getting down to basic principles, you are not going to stifle our medical press any more than you are going to stifle our lay press. The journal being blamed is published for doctors, by doctors, and paid for by doctors. You don't own it; we own it in Southeastern Texas, and over in Southwest Texas. We pay the 50 cents each. Bill Cody is one of our editors. If we don't like his stuff we have the authority to fire him. Our criticisms are not put in the lay press, for laymen to read; they are constructive criticisms, intended to help mould medical policies within our district. It would be a mell of a hess if an editor could not express some of his views on the policies of the State Association.

Dr. F. P. Miller of El Paso: No man can say that he is truly great unless he is kind and good and charitable in his construction of the motives of other men, and somewhat afraid of the consequences of passion and prejudice. That journal has had its editorials passed upon by the censoring body of this Association. It claims to be an integral part of this Association. The apathetic and indifferent in the medical profession in my country have been stimulated to a point of selfishness through the editorials in that journal, and I was promptly told every place I went what Harris County was doing and was going to do; that they represented the medical profession of Texas.

Dr. O. S. McMullen of Victoria: It is not the desire of the Board of Councilors to argue this matter; neither has it impugned the motives of any member of this Association. I am going to lay before you some of the facts as they have come before the Board of Councilors. I will read you first the caption of the journal, intending by that to establish its connection with the State Medical Association. "Medical Record and Annals, published monthly on the fifteenth for the Medical Societies of the South Half of Texas. South Texas District Medical Association, Southwest District Medical Societies, Seventh District Medical Society." Then the officers of those societies. Just below that: "State Medical Association of Texas," naming the present principal officers of the Association. I will turn now to the editorial published September 15, 1924, *"The Doctor's Loss in Prestige.*—Many of the leaders of the State Medical Association have an inferiority complex about the medical profession. Some of them are teaching and actually believe that the doctor has suffered a loss in prestige. Like other psychoses this mental condition is not based on substantial facts. It is well known that the psychasthenic will magnify trivialities into momentous problems and with equal facility ignore contradictory evidence. Many of our leaders are obsessed with the idea that the laity is about to desert scientific medicine, and take up with the medical cults and sects; notwithstanding, all the facts oppose this opinion. Every one knows that the medical sects are dying out so rapidly that a revision of the Medical Practice Act will be necessary in a comparatively short time; and that the influence of the medical cults is steadily diminishing year by year. Never before in the history of the world have the doctors made such successful efforts to prevent disease, cure illness and serve suffering humanity, as they are making today. The public knows this and appreciates the beneficent results; for laymen, the Federal Government, the states, cities and counties have spent multiplied millions of dollars in building hospitals, further millions in their support, and still more millions in public health work. All of this is being done by laymen in order to give other laymen the manifold benefits of scientific medicine administered by doctors. Every volume of the lay magazines and weeklies of national circulation, every issue of the women's publications, and many of the newspapers, contain a pertinent article on some medical subject with the same underlying theme in each: 'consult a capable physician.' This is the golden age of medicine and the doctor has made it so by applying scientific methods to prevent and relieve disease. The laity knows this and encourages it by the only means it knows, the employment of the doctor in ever increasing numbers and gifts of its time and money to institutions practicing scientific medicine. The prattle about the doctor's loss in prestige is nonsense; but it is charitable to regard it as psychasthenia. We trust that those of our leaders affected with this inferiority complex will have a speedy return to their usual mental good health."

Another editorial, January 15, 1925: *"The Raise in Dues.*—The session of the House of Delegates at San Antonio in 1924 was the occasion for a definite

split in the State Association. This breach is not temporary and will become wider as time goes on. The future sessions will be more engrossed in composing and compromising the differences between these factions. One of the groups may be called High State Dues; the other, Low State Dues. The High State Dues man will want the State Association to adopt an expansive program and embark in many projects; a State Association building, a State Library, the organization of the Council for Public Instruction and Legislation, for Research and Investigation, for Insurance, etc., etc. In short, this group regards the State Association as the tactical unit best adapted to render the greatest service to the laity and the profession. This faction has, as a nucleus, a body of earnest, conscientious men who, on account of their temperament, believe in centralization of resources, effort and authority. The nucleus is supported by many of the officials of the State Association and by those who derive the greatest benefit from such a policy. The group has a fringe of faddists—a plague to the nucleus and a delight to the opponents—who busily flit from flower to flower of 'good ideas' and become hysterical with each passing thought.

"The Low State Dues man wants the County Society and all it represents to be emphasized and have some other sphere of activity than supplying money for the State Association to spend. He is not convinced that it is any proper function of the State Association to go into real estate ventures, about which it knows nothing; or to masquerade as a politician, about which it knows even less. He can see no benefit to the individual member to increase his dues in order to duplicate and reduplicate physical plants and services already available to any one for the mere asking. He considers that all of the advantages of the centralization of power in the Association is more than counterbalanced by its positive dangers. This group is composed of those members who believe that the least government is the best, who cannot accept the idea that they must obey every edict of a House of Delegates dominated by a few men, and by those who are not benefited by the centralization of authority.

"The present rise in dues is the first step in the program of the High State Dues group. The rapidity with which future increases come will be dependent upon the success of this initial effort. The Advertising and Legislative Campaign authorized at San Antonio is naturally the starting point in the expansive program; for if effective, every member of the Association would realize its benefits and could be expected to support all the other items on account of the prestige of their sponsors.

"The most enthusiastic supporters of the Advertising Campaign were quite vague and contradictory as to the practical results to be attained, while the Legislative Campaign was much more definite in its political ends. It is now being whispered that the Advertising Campaign has failed; though it is hard to understand how this can be stated so positively when no one knew what it was supposed to accomplish. However that may be, some of the leaders of the State Association and supporters of the Advertising Campaign are expressing the opinion that the dues will be reduced in the next meeting. The failure, therefore, must have been flat, far worse than was expected by its opponents. The Legislative Campaign already has one fiasco; but, it is now too early to draw a conclusion as to its practical results.

"The Harris County Medical Society has opposed the increase in dues for the Advertising and Legislative Campaign. Its position is consistent in that it also refused to allow any advertising to appear in the lay press or any public speeches to be made in the county. Its policy with regard to the irregular practitioners, fanatics, quacks and those emotional addicts who support them, has been of practical benefit to its members; because the local situation is distinctly better than it was last year. This policy is the last word in efficiency; it is effective and costs nothing. The society will petition the next House of Delegates to reduce the dues to five dollars per annum, because it has taken its stand definitely with the Low State Dues group."

An editorial published April 15, 1925: "*The Advertising Campaign.*—The value of the Advertising Campaign to the medical profession is fixed by the ratio between its results and its cost. If the results are great, even if the cost is heavy, the Campaign has paid for itself and should be continued; but if, conversely, the results are small, even if the cost is only moderate, the Campaign has not paid for itself, and should be discontinued. The mere moderate cost of the Campaign is no more valid reason for its continuance than that a heavy outlay should inhibit it. The consideration of the ratio between the result and cost is a fair attitude to take toward this subject.

"It is said that this campaign had two objects: one was advertising, the other political. It is common knowledge that the former failed. The status of the political portion is that no candidate for Governor supported by the doctors was elected, the Legislature was uniformly friendly to the profession—as it was in the past; the Chiropractic Bill was defeated—as it was in the past; the reorganization of the Health Department failed; the reformation in the administration of the eleemosynary institutions passed. The fortunate results are confined largely to the political part, with honors fairly even between success and failure—just as it was before the campaign. But, these are not all of the results. In certain counties, the medical sects and cults have been stimulated to retaliatory activity. In Tarrant County, an embarrassing situation arose with a high official of the State Medical Association. In Harrison County the Society felt so outraged by the action of the House of Delegates with regard to this campaign that it threatened to withdraw from the Association. And in Harris County, the Society is still congratulating itself that no advertising was allowed within its jurisdiction. The results leave no sweet taste, but are rather sour.

"The expansion in activities of the State Association has necessitated an increased expenditure of approximately $13,000 this year; of which, about $8,000 can properly be charged to the advertising campaign. The cost does not stop here, for to it must be added the effort and loss in time as well as income of some forty speakers, which in the aggregate would considerably exceed in value the expenditure by the State Association. The total cost in services and money can be very conservatively estimated at approximately $20,000. But the cost does not cease with this, for there is the loss of members, which will be at least ten but will probably not reach twenty per cent. A loss greater than twenty per cent would be a disaster too terrible to contemplate. The increased income as a compensation for the loss in membership may appeal to those who value money more highly than members; but we had rather have the doctors than the dollars.

"The results as a whole have been small and accomplished at a comparatively heavy cost. The campaign has not paid for itself, and has proven to be impractical. The raise in dues has no further justification. Consequently, a reduction is in order. The Harris County Medical Society has already

spoken for a ten-dollar decrease by instructing its delegates to introduce a resolution to fix the State dues at five dollars."

Gentlemen, it was upon these editorials that the Board of Councilors based its opinion.

Dr. H. W. Cummings of Hearne: You have before you now the most important and far-reaching question that has come before you during this session; the question that we have just settled, pertaining to the dues, is insignificant compared to it. There is no greater violation of the American code of ethics today than to attempt to suppress public utterances. I believe we would place ourselves before the Association in a ridiculous attitude if we undertook to suppress its opinions. The important part of this Association is the county society. The district society has no direct representation in this body. If any district society desires to publish a journal, I don't see any reason why we should not let them do it. The criticisms under discussion apply to me, because I am a member of the Council, but I don't blame anybody for that. I have been criticised all my life; I thrive on it. Reasonable, constructive criticism is all right. Parts of these editorials are all right, so far as I can see; with other parts I disagree. Are we going to confirm some of the charges that Dr. Cody has made? He says that the House of Delegates and its officers, are coming to be a closed trust. Are we going to confirm that statement by saying that we are not only going to run this organization to suit ourselves, but are going to tell the other fellow how he shall speak and how he shall write? Let him criticise; if his criticism is wise and just he will prevail; if it is unwise or unjust, he will fail. Dr. Taylor has the authority to do some criticising in our JOURNAL His writings, it is true, are censored more or less by the Board of Councilors or the Board of Trustees, and yet what he says goes out as the opinion of this Association, and properly so. If we attempt too much censorship we weaken our cause. If I want to criticise the President about something he had done, our JOURNAL ought to be open to me as a member. If I want to get up on this floor and criticise some act of his. as an officer of this association, I ought to have the right to do so. If this gentleman wants to come here and criticise the work of the Council on Legislation and Public Instruction, which he has done, he has that right. We don't claim to be infallible. We have made mistakes and we may make many more. Let him make his criticism and let's get out of those criticisms something that will do good; something that will result in the good of organized medicine. Not long ago, in a political campaign, I decided certain questions needed discussion; most of those who stood with me were afraid to open their mouths. One of my best friends came to me the evening before a public speaking and said, he had one request to make of me, not to make a speech at the meeting. I said, "If I have to dig grub worms for a living for the rest of my life, I will speak." I did speak, and criticise some of my best friends and patrons, because I differed with them on a very serious public question. Awhile ago I voted against the gentleman from Harris County on the dues question, notwithstanding I made a plea for them to have a hearing in this body, and I think today we ought to go very slow on this question. This is a question that members of this House have not gone into. We know little about it; this is the first I have heard of those editorials. I don't believe in condemning free speech. This is a country in which we can say most anything, just so we stay clear of personal libel.

The Secretary: I rise to a point of personal privilege. As the STATE JOURNAL has been brought into the discussion I feel that I should explain our position in regard to editorial matters. When the JOURNAL speaks editorially, as "we," it represents the State Medical Association so far as the editor can determine the same from the acts of its official bodies. When the editor desires to express his personal opinion on policies, or any matters of that sort, he will write a communication to the JOURNAL, sign it, and print it in the Miscellaneous columns. There are no signed editorials in the TEXAS STATE JOURNAL OF MEDICINE. Any decently worded criticism not libelous or rebellious, will be accorded recognition by the JOURNAL, if sent in by a member.

The President: I desire a little personal privilege also. The impression seems to prevail that the districts covered by this JOURNAL elected the editor. They did not. I don't know how Dr. Cody became editor, and I am a member of one of his district societies. I don't want to influence you, but I will guarantee that if this publication doesn't change its editorial policy of calling me a psychasthenic there will be a change in editors in the course of six months. It doesn't seem right that any member of this Association should be allowed to unfairly criticise our officers, and say that the House of Delegates in San Antonio was dominated by a few who were self-serving. That is a serious reflection on the House of Delegates of 1924, if I can interpret language. I freely confess that I don't think Dr. Cody had any intention of reflecting on any of us personally, but he has done so, nevertheless.

Dr. C. M. Rosser of Dallas: I believe I see a solution of this predicament.

Indiscretion is the attribute of youth; no human is infallible. I do not resent the suggestion that I am a psychasthenic. If Dr. Cody, intelligent, educated and a just man, did not know when he wrote those editorials that they were in a sense seditious; if he did not know that a soldier cannot black-jack his general and be a good soldier; if he did not know that the Association had planted itself squarely upon a program, and that the time and place to undertake to undo that program was here and not in the interim, when men had been ordered to go forward, this body will not censure him. We do not accept the proposition that it is a matter of high dues or low dues; it is progressive or non-progressive. We do not think for a moment that a split is going to take place in this great Association. I do not believe this resolution should be voted on until Dr. Cody has had the opportunity to come forward and make such explanation as he cares to make; such apologies as he may have it in his heart to make. This Association can hardly agree that it lay forward a program for another year and go out and see its members giving comfort to the enemy. I think he knows that. I have not enjoyed intimate personal acquaintance with Dr. Cody, but I am saying now what I would say were he my brother or my son. I am pleading for great harmony next year. I want to utilize him and others in my administration. I want nobody humiliated. I certainly want every man to preserve his self respect.

Dr. E. F. Cooke of Houston: Do I understand that the President-Elect of this Association is calling on a member of the medical profession to apologize for criticising officers of the Association?

President-Elect Rosser: I did not demand anything; I said he ought to have the opportunity to do so.

Dr. Cooke: Mr. President, you mark on the books of this society that a delegate from Harris County, Dr. Edward F. Cooke, withdraws.

Dr. W. D. Jones of Dallas: I came into the activities of this Association with men who are working hard on both sides of this question. Dr. Cooke and I were on the original Committee on Medical Defense, which inaugurated the most constructive work that has been adopted by this Association in twenty years. I have been criticised and have criticised back and laughed it off. Let's be big; let's laugh this thing off! Officially, the journal carrying the editorials under discussion has no connection with this Association. We cannot properly pass a resolution censoring Dr. Cody, regardless of how much we may disagree with him. Dr. Cooke is not going to leave this House; he is going to sit here and see this thing settled and settled right. Nobody wants Dr. Cody to apologize. Dr. Rosser did not intend it that way; he merely wanted to give him a chance to explain. I think that Dr. Cody should have something to say.

Dr. Cooke: Mr. President, at the request of my friends, I have decided to remain.

Dr. C. C. Cody of Houston: If you will allow me to say so, it seems to me that much valuable time of this House of Delegates has been consumed unnecessarily, on a relatively small matter. I take it that we have many minds. Every one who has an opinion different from mine certainly has a right to express that opinion, with no danger of being accused of disloyalty. If you will find in those editorials one single word about one single man, and allow me to say here that I had in mind no one in particular, harsher than has been applied to me on the floor of this House today, and also in San Antonio, I will retract every word of my editorials. *The Medical Records and Annals* has two editors, the San Antonio editor and the Houston editor; that publication is the property of the Harris County Medical Society and the Bexar County Medical Society. The editors are independent; no consultation whatever. I take it that the San Antonio editor bears the same relation to the Bexar County Society that I bear to the Harris County Society. We are both expressing our views for the purpose of stimulating interest in the State Medical Association. I have written as the representative of the Harris County Medical Society. Not one word of criticism have I ever heard, nor has any charge been made in my own home county, that I am disloyal. Branding me as a disloyal member of the Harris County Medical Society, brands likewise the Harris County Medical Society as disloyal. This is a free country. Do you mean to tell me that this House, the legislative body of the State Medical Association of Texas, is going to throttle conscientious criticism of its policies? Are we all to be "me, too"?

Dr. M. L. Graves of Galveston: I have no disposition to prolong this discussion unnecessarily, nor do I wish to see asseverations arise in this body that will jeopardize our influence over the public in Texas, and when we fall out and fight among ourselves that is exactly what happens. I take it that no man in this society desires to stifle legitimate criticism; but I take it, further, that the members of this society do not wish to endorse or approve rebellion from its authority. If I am correctly informed, the Constitution and By-Laws of our Association has in it two articles on district societies. Let me read, for your information: "The Board of Councilors shall organize the profession of each Councilor District into a district society when practicable, and shall cause charters to be issued to said district societies in the manner and form prescribed for county societies. It shall be lawful to combine two or more districts into one society, but not to divide districts for this purpose." May I ask the Secretary if these district societies have charters from the Association?

The Secretary: I have never issued any that I recall. The matter of charters for district societies has not been cared for as in the case of county societies. There is a record in the office of the organization of these societies, but if any charters have been issued there is no record of it.

Dr. Graves (continuing): Then if that be true, these district societies are not component parts of the State Association. It is provided further that "District societies so organized and chartered shall have for their sole purpose the improvement of the scientific attainments and living conditions of the members of their respective societies, and they shall under no circumstances assume the prerogatives or functions of the component county societies, beyond hearing papers read and certifying to that fact, in the absence of an opportunity of an author to present the same to a county society, in qualifying for position on the program of a scientific section of the State Association. Officers of a district society shall be as desired by the said society and their duties shall be as they may define, provided they do not in any manner contravene the provisions of this Constitution and By-Laws."

The erection of a journal under the protection of an organized society within the domain of the Association and under its authority, which shall act in rebellion of its authority, I don't think was ever contemplated. Nor do I think that Dr. Cody, nor his societies, for whom I have respect, had any intention of rebelling against the authority of the State Medical Association. They meant simply to express their individual convictions that this campaign was a mistake and not to agree with this sort of a program. It seems to me that his language is everywhere couched in polite terms. I would be one of those, like Dr. Cummings, who would hesitate to stifle constructive criticisms; and yet I think that Dr. Cody and his associates, in the establishment of this journal in which criticisms have appeared, have in effect been using a bludgeon against the State Association, and have made a mistake. If we pass this resolution we will in effect say that we must never constructively or otherwise criticise the acts of this Association; and that would be fatal to our progress. Let's, gentlemen, not in the heat of passion, not with personalities raging about us, but with the best interests of this society in view, resolve this question in some way that shall not give food to our enemies, and which shall still exalt the medical profession and help it in this compaign of education, which we shall carry on with increased efficiency.

I believe the question before the House is Dr. Cooke's motion to reject this report. Dr. Cooke is no longer a member of this Association, or of this House; he has withdrawn from this body and given due notice of that fact here. Is his motion in order?

The President: He came right back in and said that he had reconsidered immediately.

Dr. Graves (continuing): Oh, he has reconsidered. I am delighted with that fact. I hope his reconsideration is permanent and that he will remain with us during the rest of his life.

Dr. O. S. McMullen of Victoria: I believe we are losing sight of the fact that the *Medical Record and Annals* is not a privately owned publication. If it is owned by Harris County Society, as Dr. Cody says it

is, then the members of the district societies have become subscribers under a false impression. We have believed for some time, down in our part of the country, that it was owned and heartedly supported by the district societies. If it is privately owned, then the Board of Councilors have no right to make any kind of recommendation whatever. We are not attempting to throttle free speech. We have informed this House that one of the subsidiary publications of the State Association has taught open rebellion from the will of the House of Delegates, in its editorial columns, and have said that this should not be. If the name of the State Medical Association is stricken from the caption of this journal, and the references to the district societies removed, then the Board of Councilors is without any ground to stand on. But we do feel that when a thing is coming before our members every day and teaches open rebellion to this body, and tells us that there are certain members of the State Medical Association who refuse to be guided by this House of Delegates, it is our province to take notice thereof.

The question of whether these district societies have charters is technical and *de facto*. They are recognized by the State Association, and this journal is their organ; that is a fact, and is well known by every member of those district societies, and each of us contributes fifty cents a year to the support of this journal.

Dr. M. L. Graves of Galveston, moved to re-refer the resolution to the Board of Councilors, which motion was seconded by Dr. N. A. Poth of Seguin.

The motion was put and carried, and the resolution was re-referred to the Board of Councilors, for further consideration.

Election of Officers.

The President: The By-Laws provide that we shall elect officers on the third morning of the session. Drs. Wynn, McLean, Green and Caton will serve as tellers. Nominations are now in order for President-Elect.

Dr. W. B. Russ of San Antonio: I think it is about time for us to agree on something. I know it is not time to make a speech. I think everybody is tired of speeches. I am going to nominate a man without making a speech. I don't believe he needs a speech. I will say this in his behalf, I officed with him for 25 years and you ought to be able to stand him one year. I am going to nominate John H. Burleson, of San Antonio. The name of Burleson stands for something in Texas. His family were pioneers in Texas. There has never been a Burleson that I knew anything about who wasn't born in and identified with Texas, and there has never been a man yet who has justly pointed to anything that any Burleson in the State of Texas has done that has not been patriotic and in the interests of all the people. John Burleson has not pushed himself forward in a political way. He is a modest man, but he has the quality that a great many modest men have who succeed. He has courage back of his modesty. A man can be modest from timidity, from side-stepping, from failing to face questions. Every man in this House who knows John Burleson knows that back of his modesty is all the courage that it takes to fight any sort of battle. Qualified in a scientific way, qualified from political experience, though he has never sought office, and qualified in every essential that it takes to make a President, it gives me great pleasure to present the name of a man not identified with any political faction or clique, or with any hair-brained scheme or criticism of any man or group of men. There isn't a man in this House today but can say that Dr. Burleson is his friend in the fullest and best sense of that word.

Dr. J. W. Burns of Cuero: Success is a relative term. A man may be successful in some ignoble enterprise. A man who has high ideals, a man who has for his goal the betterment and the elevation of mankind, always challenges our admiration and our respect. It is fitting, it seems to me, that we elect a man who was born in the City of Austin, whose ancestors were prominent in the making of the history of our State, born of parents who were not wealthy, who sold newspapers as a barefooted boy on the streets of Austin a number of years ago. With education limited to the high school course, and by dint of his own will-power, perseverance and tenacity of purpose, he has worked his way to the front of the most noble profession in the world. John Burleson lives in the house by the side of the road and is a friend to man.

Dr. M. L. Graves of Galveston: In presenting the name of another one of our distinguished members, I have no disposition to detract one iota, nor would I say anything against the sterling character and high qualities of the gentleman just nominated. However, I present for your consideration a man who is known by his works, also, and I can attest to his modesty. In 1891 he came to this State and associated himself with the Medical College at Galveston. From that time until this good day, in every movement for educational betterment, for progressive policies and good work in the medical profession, he has been prominent and untiring. He has given the greatest of all gifts, a portion of himself, to this great work. I present to you a man unblemished in character, honest, of a high degree of courage, capable of administering the affairs of this office, who is entitled to the respect and honor of every member of this Association for what he has done for medical education and medical progress, and for the progress of this Association in this State. I take very great pleasure in nominating for this office, Dr. William Keiller of Galveston.

Dr. W. D. Jones of Dallas: Last year I seconded the nomination of a man who had been defeated for this office by only one vote the year before. I felt that he deserved the office and we needed him. I did that in the face of the fact that the most highly scientific man that has ever been offered to this or any other society in this United States had been nominated—Dr. William Keiller. It almost broke my heart to do that. I am free of that obligation now, and take pleasure in seconding the nomination of a man, as Dr. Graves has said, who has devoted his life to the promotion of medical science. He has never been called upon, though sick he may have been, to perform a duty, in Boston, Chicago, or wherever it be, that he did not lay everything down and go. If you ever intend to honor a highly scientific man in this Association, gentlemen, now is the time to do it.

Dr. W. L. Brown of El Paso: I rise to second the nomination of Dr. William Keiller; we feel, out in our part of the State, the far western end of the State, that Dr. Keiller has done a great service to the State; he has done as much as any man in the State to educate young men who are now practicing within its bounds, and I feel, with the previous speaker, that if we are ever going to render to Dr. Keiller this honor, we had better not put it off too long.

Dr. Joe Dildy of Brownwood: I rise to second the nomination of Dr. John Burleson.

Dr. A. A. Ross of Lockhart: I re-echo everything that has been said in favor of Dr. Keiller. I love

him because he is my adopted father, through my son, whose diploma he signed. I am for Dr. Keiller as Dean of the Medical College. He is the greatest teacher of anatomy in the world today. But he is a sick man; he has too much to do. I offer to you a man who is neither too old nor too young, who is qualified in every sense of the word to preside over this body, who is fearless, clean and ethical, who is a specialist who sends your patients back to you, who back-bites and fights no man, who is fearless and, like me, a roughneck, and who will make you a President second to none. I second the nomination of John H. Burleson of San Antonio.

Dr. W. E. Luter of San Antonio, who, on motion, had been granted the privileges of the floor, said: I dislike very much to oppose the nomination of a fellow townsman, but I cannot resist the temptation to endorse the nomination for this office of a man for whom I have, and I think the entire profession has, the utmost regard. He is a scientist and he has never shirked any duties that have been put upon him. He is in better health today than he has been for some years. I respectfully urge the election of Dr. Keiller. Dr. Burleson is young and will yet have an opportunity for preferment.

Dr. Jno. S. Turner of Dallas. I have lived in San Antonio, and have known Dr. Burleson for many years. I love him very much, and am sure he would make an ideal President. I have also known Dr. Keiller for many years. I know Dr. Keiller to be one of the most scientific men in the State of Texas. I think this body will do itself proud in the election of either gentleman, but I believe Dr. Burleson's time will yet come. I believe at this time we should elect Dr. Keiller President-Elect, therefore I second his nomination.

Election of President-Elect.

The President: Any further nominations? Nominations are closed, and the ballot will be spread.

The Secretary announced that Dr. Burleson received 37 votes and Dr. Keiller received 57, making a total of 94 votes cast.

The President: I declare Dr. Keiller elected President-Elect of this Association.

On motion of Dr. Burns, seconded by Dr. Ross, the election of Dr. Keiller was made unanimous.

The President: Nominations for Vice-President are in order.

Dr. H. W. Cummings of Hearne: I wish to nominate a man for Vice-President who has worked in the ranks of medicine for many years, and who has been one of the most active men in small county societies that I know. He has been secretary of his own county society for a long time, and is one of the most efficient and persistent secretaries in the State. I don't belong to his society, but I regularly get the printed programs, and sometimes I am called on to visit that society and help him keep it active. I refer to Dr. G. B. Taylor, of Cameron, and I nominate him. If he is elected, and when elected should he at any time be called to the chair, he will preside over this body effectively and with dignity.

Dr. A. C. Scott of Temple: I second the nomination of Dr. Taylor. I know him personally, and know that he has been one of the most constant and efficient workers in the ranks of this Association.

Dr. M. M. Morrison of Denison: I want to place in nomination for the position of Vice-President, a man who has no idea that such a thing is about to happen. I ask you to elect from the great North Texas district a friend of mine, a friend of yours, a friend to the profession, a friend to humanity, and a man able to perform any duty imposed upon him. I nominate Dr. C. A. Gray of Bonham.

The nomination of Dr. Gray was seconded by Drs. E. H. Cary and John S. Turner of Dallas.

Dr. N. D. Buie of Marlin: I wish to make a unique nomination, and place before you a doctor who has never taken part in our politics; one who is the peer of any doctor in Texas in scholarship and attainments; one who will grace the office, and of whom we will be very proud. One of our delegates said to me today that we should be very careful in nominating Vice-Presidents, for any one of them may become President. I realize that responsibility. I nominate Dr. Minnie C. O'Brien of San Antonio.

Dr. W. P. Coyle of Orange. I want you to understand that I am not in the ungallant attitude of nominating my man against the lady. We have in my town a young man of great ability. He organized our county society and made a warm personal friend out of every practicing physician in the county. He is a hard worker, and is conscientious. I am going to place in nomination for Vice-President, Dr. Robert E. Barr, of Orange.

Election of Vice-Presidents.

The President: Any more nominations? The nominations are closed and the ballot will be spread. Vote for three, and the three high votes win.

The ballot was spread and the Secretary announced the results as follows: There were 248 votes cast, which, divided by three, leaves 82 2-3 votes. Of these, Dr. Taylor received 74 votes, Dr. Gray 67, Dr. Minnie C. O'Brien 60, Dr. Barr 47.

The President: Dr. Taylor, Dr. Gray and Dr. O'Brien are elected Vice-Presidents of this Association. Next in order is the election of Secretary.

Dr. M. M. Morrison of Denison: I nominate Dr. Holman Taylor, of Fort Worth.

Election of Secretary.

The nomination was seconded, and, upon motion, nominations were closed and Dr. Taylor elected by acclamation.

Dr. J. W. Burns of Cuero, nominated Dr. K. H. Beall of Fort Worth, to succeed himself as Treasurer, and Dr. C. C. Cody of Houston, seconded the nomination.

Election of Treasurer.

Upon motion, duly seconded, nominations were closed and Dr. Beall elected by acclamation.

The President: Nominations for Trustees are in order.

Election of Trustee.

Dr. S. P. Vineyard of Amarillo, nominated Dr. W. R. Thompson of Fort Worth. The nomination was seconded by Dr. C. C. Foster of Granger, and, upon motion, nominations were closed and Dr. Thompson elected by acclamation.

The President: Nominations are in order for Councilor for the Third or Panhandle District.

Election of Councilors.

Dr. W. N. Wardlaw of Childress, nominated Dr. A. F. Lumpkin of Amarillo. The nomination was seconded by Drs. J. T. Horton of Quanah and S. P. Vineyard of Amarillo.

Upon motion, nominations were closed and Dr. Lumpkin was elected by acclamation.

The President: Next is Councilor for the Fifth District.

Dr. S. E. Thompson of Kerrville, nominated Dr. S. P. Cunningham, of San Antonio, which nomination was seconded by Drs. J. W. Goode and R. E. Bowen of San Antonio.

Upon motion, nominations were closed and Dr. Cunningham elected by acclamation.

The President: Councilor for the Sixth District.

Dr. F. U. Painter of Corpus Christi, nominated Dr. C. P. Yeager of Kingsville, which nomination was seconded by Dr. W. T. Dunning of Gonzales.

Upon motion, nominations were closed and Dr. Yeager elected by acclamation.

The President: Nominations are in order for Councilor for the Twelfth District.

Dr. C. M. Hall of Hico, nominated Dr. N. D. Buie of Marlin, which nomination was seconded by Drs. H. W. Cummings of Hearne, E. H. Cary of Dallas, and G. B. Taylor of Cameron.

On motion, nominations were closed and Dr. Buie elected by acclamation.

The President: Councilor for the Fifteenth District.

On nomination of Dr. A. E. Starnes of Hughes Springs, seconded by Dr. J. S. Turner of Dallas, Dr. J. K. Smith of Texarkana was elected by acclamation.

Election of Delegates to American Medical Association.

The President: Nominations for Delegate to the American Medical Association are now in order, Place No. 3.

The Secretary: The House of Delegates of the American Medical Association has reapportioned the representation in that body from the various states, and for this next year at least, Texas will be entitled to only four delegates and four alternate delegates. You will elect to fill the third and fourth places.

Dr. A. P. Howard of Houston nominated Dr. E. H. Cary of Dallas, which nomination was seconded by Drs. W. D. Jones of Dallas and S. P. Rice of Marlin, and Dr. Cary was elected by acclamation.

Dr. W. D. Jones of Dallas, nominated Dr. Holman Taylor of Fort Worth, to fill place No. 4, Delegate to the American Medical Association, which nomination was seconded by Dr. J. W. Burns of Cuero, and Dr. Taylor was elected by acclamation.

The President: Alternate Delegates to the American Medical Association, Place No. 3.

Dr. John S. Turner of Dallas, nominated Dr. G. B. Foscue of Waco, which nomination was seconded by Dr. H. W. Cummings of Hearne.

On motion, nominations were closed and Dr. Foscue elected unanimously.

Dr. J. W. Burns of Cuero, nominated Dr. S. P. Rice of Marlin, for place No. 4, which nomination was seconded by Dr. H. W. Cummings of Hearne.

On motion, nominations were closed and Dr. Rice elected by acclamation.

Election Member Council Medical Defense.

The President: It is the duty of the President to nominate a member for the Council on Medical Defense. There may be nominations from the floor. I nominate Dr. F. P. Miller of El Paso, to succeed himself.

On motion of Dr. C. C. Green of Houston, seconded by Dr. J. J. Hanna of Quanah, Dr. Miller was elected by acclamation.

The President: I am going to defer nomination of the three members of the Council on Legislation and Public Instruction, in view of the prospective changes in the By-Laws relating to the Council. We will now select the place for our next annual session.

Dr. C. C. Cody of Houston, asked for the privilege of the floor for Dr. A. H. Flickwir of Houston, which was granted.

Dr. E. D. Crutchfield of Galveston: The Treasure Island of Texas desires to have this Association to meet next year in Galveston. I hold in my hand official communications from the County Medical Society, from the representative of the University at Galveston, and from the Chamber of Commerce, and I am authorized by the Mayor of the city to invite you to come there on behalf of the city. If I may have a moment, I will read you two of the official communications:

"I am writing you as local delegate to beg that you will present to the House of Delegates the very hearty invitation of the Medical Branch of the University of Texas to hold the next meeting of the State Medical Association in Galveston. By that time our new laboratory building will be in reasonably good running order and we shall be prepared to extend all the facilities of the complete group of lecture rooms for the auditorium, capable of seating three hundred.

"We shall also promise every effort possible on our part to present a thoroughly satisfactory scientific exhibit and in every other way in which they may need our assistance shall endeavor to make the meeting a success.

"(Signed), W. Keiller, Dean."

"The Galveston County Medical Society requests that you select Galveston as the place for the 1926 meeting of the State Association.

"In extending this invitation, we have done so after a careful consideration of the available hotel accommodations and meeting places for the scientific sections. The Galveston hotels will be open in May preparatory to caring for a large number of summer tourists, and at the time of the State meeting will have ample facilities for all, since the tourist season actually begins somewhat later.

"In providing space for the scientific sections, the new laboratory building of the Medical Department of the University of Texas will be open and at our disposal. We feel, therefore, that we can entertain the State Medical Association with satisfaction to all concerned.

"The Galveston Chamber of Commerce has offered its assistance in every possible way with the purpose of making the meeting a success in every particular.

"It is our desire that you consider this invitation carefully, and trust that you may see fit to accept our hospitality.

"(Signed), N. Andronis,
"President, Galveston County Medical Society."

The Galveston County Medical Society really wants you, gentlemen. We are anxious to have you because it has been a long time since you have been our guests. We are anxious to have you because we would like you, the Medical Association of Texas, to be in touch with our medical school as much as possible. We would like to extend you our personal invitation to accept our personal hospitality. I hope you will believe that we earnestly want you to come.

The Secretary: The Secretary desires at this point to lay before this body a communication from the Galveston Chamber of Commerce, dated April 28, 1925, in which the Chamber of Commerce invites this organization to come to Galveston.

Dr. E. F. Cooke of Houston: It gives me pleasure to introduce to the House of Delegates the President of the Harris County Medical Society, Dr. A. H. Flickwir, who will, according to the instructions given to us delegates, extend an invitation to you to come to Houston.

Dr. A. H. Flickwir of Houston: The Harris County Medical Society wants you to meet in Houston next year. We are going to show you a good time if you

come. I hold in my hand invitations from the mayor of our city, Mr. Oscar Holcombe, from the county judge, Chester Bryan, from the Chamber of Commerce, from the Better Business Bureau, and many other civic organizations. We have adequate hotel accommodations. I could talk for an hour on the beauties of Houston, about the hospitals we have, such as the new Methodist, the new Baptist, new St. Joseph's, new Jefferson Davis, and the new Herman, which latter is the most magnificent thing of its kind in the South, and which will be completed in July and opened to the medical profession, but you have been there before, and I am going to assure you that if you come back this year we will do better than we have ever done before. I want to officially extend to you an invitation to come to Houston, for your next annual session, on behalf of the Harris County Medical Society and the city of Houston.

Dr. E. H. Cary of Dallas: I quite appreciate what it means to jump into a family row or to join in supporting any one city which is so near another city as Galveston and Houston, but the doctor spoke so much of the new this and new that, the thought has occurred to me that inasmuch as so much has been said and done here about Harris County Society, going there next year would give them a different spirit, if they need it. Perhaps this would furnish an opportunity to those gentlemen to get together, if they have any differences, to bury their troubles and greet us in that fashion that we require and in that fashion in which we expect to be greeted. I second the nomination of Houston.

Dr. E. F. Cooke of Houston: For the information of this House, I have seen our President hobnobbing with the Federal Revenue Officer; I am satisfied that he has made satisfactory arrangements.

Dr. C. C. Green of Houston: In view of the position that Harris County Medical Society has taken this year, perhaps it is necessary for us to tell you that, so far as we are concerned, we bury the hatchet. We still will come back with honest differences of opinion whenever we have them, but we want you fellows next year, and assure you that we are not nearly so bad as Dr. John T. Moore would have you think we are.

Selection Place of Meeting.

The ballot was spread and the Secretary announced that 69 ballots were cast, of which Houston received 36 and Galveston 33, and Houston was declared the place of the next Annual Session of the State Association.

On motion, the House recessed to 2:30 p. m.

AFTERNOON SESSION.

The House was called to order at 2:30 p. m., with President Dr. Bledsoe in the Chair.

The President: I want to present to you a friend of this Association, Dr. T. J. Crow of Dallas, Secretary of the State Board of Medical Examiners. I want you to look at him and see what he looks like and hear him for a moment.

Address of Dr. T. J. Crowe.

Dr. T. J. Crow of Dallas: I have enjoyed hearing your discussions, and have been somewhat interested in some of them, particularly the discussion with reference to dues. The thought had probably not occurred to some of those who opposed the $10.00 fee, that there is a great deal of work ahead for the profession and especially for the State Board of Medical Examiners. For the last four years, since I have been Secretary of the Board, I have tried to bring about prosecutions, without result, and it seems to me that after twenty odd years experience in connection with the work of the State Board of Medical Examiners, that there is but one satisfactory solution of the law enforcement problem. You all know, no doubt, that the State Board of Medical Examiners is not financed except through its own efforts and such moneys as it receives from fees from applicants for licenses. The expenses of administration of the Board are considerable, and the Board, therefore, has no money with which to conduct prosecutions. If you ever get results in prosecutions in this State, it will have to come through some designated authority, some authority that you yourselves direct. I believe it will be necessary for the State Association to employ an attorney to work up prosecutions for you. I find from my experience with the profession generally, that it is impossible to get information from doctors. The doctors will write in to me, the Secretary of the Board, and tell me that some chiropractor is practicing without a license, or that some one else is practicing in his neighborhood without a license, and wants to know why I don't put him out of business. I write back and tell him I cannot ask for a prosecution without evidence, and ask whether he is willing to go out and get the evidence on which I can ask for prosecution. If he isn't, I have no chance in the world to induce prosecution. I find that the average doctor is too busy or he is not sufficiently interested in the prosecution to follow up illegitimate practitioners and get evidence on which convictions may be had. I do not think it is proper to ask a doctor to do that. Some provision should be made for employing an inspector, possibly two inspectors, to go out and get evidence. The doctor would not like to do it even if he were so disposed; he would not want to incur the enmity of good people of the community, as it might be considered persecution. District attorneys are not much disposed to take up this work. If you ask for prosecution, they will say, "We haven't time to go into that, you doctors are fighting among yourselves all the time and we haven't time to fool with it." But if the case is already prepared, with the necessary evidence, he cannot well escape. If he fails or refuses then, you have recourse to the Attorney General, and the court has the authority in the event prosecuting attorneys fail to prosecute, to call upon the Attorney General.

In Chicago, in February, I heard a great deal said about the shortage of physicians. Dr. Pusey championed a reduction of educational requirements, largely, of course, by cutting out some of the nonessentials and perhaps, it was suggested that by overlapping instead of giving a student a three-months vacation each year, the course be a continuous one. I hope this organization will not ask for a reduction of qualifications. I think that would be a great mistake. There really is not a shortage of physicians in the country. I have letters every few days from young men asking for locations, but hospital facilities are short in rural communities. Henry Ford has removed the sanitarium from the rural district. If people have appendicitis they go to the city. Consequently, the country doctor is forced sooner or later to move to the city.

The Secretary: Dr. Cary introduces the following resolution of thanks:

Resolution of Thanks.

The House of Delegates of the State Medical Association of Texas, assembled, takes delight in recording the pleasure the membership of the Association has experienced in accepting the hospitality of the citizenship of Austin. The arrangements for our accommodation have been entirely satisfactory. The loyalty and coöperation of the Travis County

Medical Society, and the charming consideration of the Woman's Auxiliary of that organization, have added cordiality to the general good feeling expressed by our members throughout the meeting. The hotels, the Chamber of Commerce, the Elks Club, the Odd Fellows Lodge, the churches, particularly the First Baptist Church, the State Board of Control, the local press and the United and Associated Press, have contributed so materially to our welfare that our obligation to them is made of record. Be it

Resolved, that this expression of good will be communicated to those mentioned, and to others to whom we may be obligated, for a most pleasant and profitable experience in connection with the Fifty-Ninth Annual Session of the State Medical Association of Texas.

Upon motion of Dr. W. B. Thorning of Houston, seconded by Dr. C. C. Green of Houston, the resolution was unanimously adopted.

Dr. C. W. Goddard of Austin, then submitted the first report of the Reference Committee on Amendments to the Constitution and By-Laws, as follows:

FIRST REPORT REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS.

Your committee endorses the tentative By-Laws and regulations published in the handbook and amended by supplementary report of the standing committee, and recommend their adoption by the House of Delegates, with the following amendments:

Section 18, page 108, line 4, insert after the word societies, "and other expenses."

Chapter 4, Section 7, line 19, change to read after the word councilors, "in due and orderly procedure." Add to Section 7 the following sentence: "All decisions rendered by Board of Councilors shall be in writing, together with reasons for arriving at such decisions, and a copy of which shall be made of permanent record in the office of the State Medical Association."

Article 6, Section 5, line 5, on page 102, to read after the word to, "apply for membership in another component county society."

We disapprove of the recommendation made by the Harris County Medical Society, respecting annual dues of members of the State Association, and recommend in lieu thereof the adoption of the recommendation of the Board of Trustees.

"Respectfully submitted,
"C. W. GODDARD, Chairman,
"R. E. BOWEN,
"C. P. YEAGER,
"JAS. W. WARD."

Dr. C. A. Gray of Bonham, moved the adoption of the report, which motion was seconded by Dr. J. T. Horton of Quanah.

The Secretary: As I understand it, the motion is that the report of the Reference Committee on Amendments to the Constitution and By-Laws be adopted. If it is adopted the Constitution and By-Laws printed in the handbook and as amended in the supplementary report of the Committee on Revision of the Constitution and By-Laws and the Reference Committee, plus what changes we make now, will be adopted.

Dr. E. F. Cooke of Houston: A point of order. The Revised Constitution and By-Laws is not properly before this House for adoption. Article XI, Section 1, of the Constitution, says: "The House of Delegates may amend any Article of this Constitution by two-thirds vote of the Delegates registered at any Annual Session, that such amendment shall have been presented in open meeting at the previous Annual Session, published in the official organ of the Association, and sent officially to each component society at least two months before the session at which final action is to be taken." None of which has been done.

The President: The point is not sustained. One year ago, at San Antonio, the House of Delegates, on a report of the Constitution and By-Laws Committee, added the following Article to the Constitution: "Provided further, that a total and complete revision of the Constitution and By-Laws may be accomplished at any regular session, notice having been given of such intention in the House of Delegates at a meeting during the preceding Annual Session of the Association." Last year notice was given that a complete revision of the Constitution and By-Laws would be had this year.

Dr. Cooke: I rise to another point of order. That amendment was illegally adopted, and therefore null and void. If I read correctly, this amendment was introduced on the first day of the last Annual Session, held at San Antonio, and was adopted the next day. There had been no copies sent to any component county society; it hadn't been published two months before action was taken; it was an amendment to the Constitution and not the By-Laws.

The President: The amendment was proposed in due and regular form in a regular meeting and did not have to be referred to the county societies two months previous to its consideration a year later.

Dr. Cooke: Let me read from the supplementary report of the Committee on Amendments to the Constitution and By-Laws, submitted on the first day of the meeting at San Antonio last year (June JOURNAL): "It has occurred to this committee that the complete revision of the Constitution and By-Laws of the Association will be deferred another year unless there is a Constitutional provision whereby complete revision may be accomplished at a specified time. Therefore the committee respectfully suggests the following: Amend Article XI of the Constitution by adding the following to Section 1 thereof: "Provided further that a total and complete revision of the Constitution and By-Laws may be accomplished at any regular session, notice having been given of such intention in the House of Delegates * * *." Gentlemen, up to the time of the presentation of that amendment by this committee these certainly were in force. This resolution was introduced first on the first day of the 1924 session, the first that this House had ever heard of it. Then, on page 127, we find that the Reference Committee on Amendments to the Constitution and By-Laws recommended its adoption, and it was adopted at that same meeting.

The President: I think Dr. Cooke just wants to establish the fact of legality. A year ago notice was given of an amendment to the Constitution and By-Laws. If that amendment were adopted now, the notice given out two years ago, of a complete revision of the Constitution and By-Laws, certainly would make the proceedings legal. It would take some pretty clever lawyers to stifle the will of this society after two years study and effort to revise the Constitution and By-Laws.

Dr. C. A. Gray of Bonham, with the consent of his second, and the chair, withdrew his motion to adopt the report of the Reference Committee on Revision of the Constitution and By-Laws, and moved the adoption of the following amendment to Section 1, Article XI of Constitution, the same having been filed the previous Annual Session, and due notice thereof given through the June, 1924, JOURNAL:

AMENDMENT TO THE CONSTITUTION.

"Provided, further, that a total and complete revision of the Constitution and By-Laws may be accomplished at any regular session, notice having been given of such intention in the House of Delegates in a preceding session of the Association."

The motion was second by Dr. J. G. Harrison of McAllen, was put and carried.

Dr. C. A. Gray of Bonham then moved the adoption of the pending report of the Reference Committee on Amendments to the Constitution and By-Laws, which motion was seconded by Dr. J. T. Horton of Quanah.

The President: If Dr. Cooke is satisfied that we have properly before us the revised Constitution and By-Laws as submitted by the Committee on Amendments to the Constitution and By-Laws, which committee has been in existence two years, we will proceed. I have served on this committee for two years and I am not entirely satisfied with the revision, but I am satisfied it is the best we can expect to do. I know the dotting of every "i" and the crossing of every "t." I have read it not once but twice in committee hearings, and have studied the instrument between times. I submit further, that any desired changes can be made next year. Let's don't argue over minor things.

Dr. E. F. Cooke of Houston: The President asks if I am satisfied? In order to get myself on the record, let me say, that I am not satisfied, but I am not going to obstruct the business of this House any further. I wish to say, however, that when you go to playing tricks with your fundamental law you are doing a very dangerous thing.

Dr. H. W. Cummings of Hearne: We are making a revision of our Constitution and By-Laws, and it looks like we are going to do it in about fifteen minutes, at the end of the session, when we are all tired out and want to go home. This is too serious a question to treat lightly. Some twenty years ago, when the Constitution that you now have was adopted, I was in the midst of a contest over one section, and was defeated. I was told at the time that the Constitution and By-Laws could be amended at any time, but it is not so easy to amend the Constitution and By-Laws and it really should not be. There is one section that I have always believed and believe yet, is wrong, and I want to register my objection to that particular section, and I don't want this House to get in too big a hurry to think about it. You will find in Article IX, Section 1, that "The Business affairs of the Association shall be managed by a Board of Trustees comprising five members elected in accordance with this Constitution and By-Laws. All funds of the Association shall be subject to the exclusive control of the Board of Trustees, except as otherwise provided in this Constitution and By-Laws." You will find in Article XIII, Section 5, that "The Association, through its Board of Trustees, shall have the authority to disburse its funds in accordance with this Constitution and By-Laws. All appropriations made by the House of Delegates, or acts requiring the expenditures of funds shall be approved by the Board of Trustees before becoming effective." The State Medical Association is a body composed of component county societies. The House of Delegates is its law-making body.

The President: I don't mean to cut off your debate, but that matter has been considered; our attorney tells us that we don't even have the right, under our charter from the State of Texas, to amend our laws as we have sought to do. The Trustees have to do it. Whether we like it or not, cannot be helped until our charter has been changed, and the corporate laws of this State must govern under all circumstances, as long as we enjoy their protection.

Dr. Cummings (continuing): That justifies me in my fight twenty years ago, when I claimed that no creator was wise who made a creature with more power than he had himself. And if this Association twenty years ago gave to five men the power to veto the acts of its legislative body, it was at least something out of the ordinary in representative government. Now is the time to at least take some steps to right ourselves for the future.

The Secretary: It is not the Constitution that we adopted twenty years ago that stands in the way; it is the laws of the State of Texas. I have a letter from our General Attorney which says that if we are to be protected by the State, final power must rest with our Board of Trustees, acting as a Board of Directors. We have tried to correct that by providing that the Board of Trustees shall submit to this body budgets each year, covering the financial requirements of the various agencies of this Association, which budget shall be discussed and decided by this House of Delegates.

Dr. Cummings (continuing): I merely want to take this position. The Congress of the United States is the law making power of this government of ours. It has the right to appropriate funds. It creates various and sundry boards and commissions; it can pass any laws it desires; the President of the United States can veto the acts of Congress, but Congress, being the representative of the people, has the power by two-thirds vote to override the veto. If the charter of this State Association provides otherwise, it is high time we were changing it. The members of the House and the members of the State Association who contribute our funds, should at least have some sort of say as to what shall be done with them. We have selected a Board of five Trustees, all good men. It takes three years to change the Board. Somebody says that if the Board of Trustees appropriates money that we don't want appropriated, or does not appropriate when we want them to, get rid of your Board. It takes three years to do that. The majority of that Board is three. These three can veto the power of this House of Delegates on matters of finance. That is an autocratic power that should not be permitted to remain there. I make no accusation of misuse of power by the Board of Trustees, but I do say that it is basically wrong to take the power from ourselves and place it where two or three men can use it against us if they want to. It may be illegal to provide otherwise. I have not investigated that, and I grant that the Chairman and Secretary have, but I think it is high time that we were thinking along those lines.

Dr. W. P. Coyle of Orange: Section 3, Article VII of the Constitution, provides that the President may at any time he sees fit call special meetings of either the House of Delegates or the whole State Association. I think that is unnecessary and unwise, and I serve notice that I shall attempt to amend that section so as to remove that power.

Section 8, Chapter XI, of the By-Laws, provides that whenever any member of a county society demits, the society he goes to must accept him as a member and have nothing to say about it. That is unwise.

Chapter XI, of Section 11, of the By-Laws, about half way down the section, provides that the term of office of delegates shall be two years. We get some of these green delegates in here, like Swonger, and it takes them a year to learn anything at all.

Dr. M. M. Morrison of Denison, filed the following proposed amendments to the Constitution for consideration during the next Annual Session:

ARTICLE IX.

Sec. 1.—The House of Delegates shall constitute the legislative body of the Association. The membership of the House of Delegates shall consist of delegates, elected in accordance with the Constitution and By-Laws.

Sec. 2.—The President, the President-Elect, the Secretary-Treasurer, the Councilors, the Trustees and the members of the Council on Medical Defense, shall be recognized as honorary members of the House of Delegates. They may participate in the proceedings by permission of the House, but they shall not be granted the privilege of voting on any question coming before the body.

Sec. 3.—The House of Delegates shall meet and organize at the time of the Annual Session of the Association, in accordance with the By-Laws of the Association, and they shall meet at such other times as may be provided for in the By-Laws. A majority of the delegates registered at the Annual Session shall constitute a quorum.

Article XI, Section 2, of the Constitution, says that a quorum shall consist of a majority of the delegates registered at the annual session. Chapter 8, Section 3, of the By-Laws, as published in the hand book, says that a quorum shall consist of a majority of the delegates and the ex-officio delegates. That is an inconsistency, unless corrected by the supplemental report of the committee.

The Secretary: Should we adopt this Constitution and By-Laws like it stands, a quorum of this House of Delegates would consist of half of the members of this House in attendance, as per the Constitutional provision just read, the Constitution assuming that all members of this House are delegates. The By-Laws should be changed to accord with that at this meeting.

Dr. C. R. Hannah of Dallas. We are not satisfied with the status of the Section on Gynecology and Obstetrics. Will these By-Laws incorporate the change provided in a resolution adopted yesterday?

The Secretary: This House of Delegates adopted a report yesterday which recommended that the Section on Gynecology and Obstetrics be abolished, but the change has not been incorporated in these By-Laws, and if we do not so amend, the action of yesterday will be of no effect. The By-Laws we are discussing now includes a Section on Gynecology and Obstetrics.

AMENDMENT TO BY-LAWS.

Dr. O. S. McMullin of Victoria: I move that Chapter I, Section 14, of the By-Laws, be changed so that the dues shall be $10.00, as follows: To the Medical Defense Fund, $1.00; subscription to the TEXAS STATE JOURNAL OF MEDICINE, $2.50, and to the General Fund, $6.50.

The motion was seconded by Dr. C. M. Covington of Montgomery, and was put and carried.

Dr. Jno. T. Moore of Houston: I now move that the report of the Reference Committee on Amendments to the Constitution and By-Laws, as amended, be adopted.

ADOPTION OF REVISED CONSTITUTION AND BY-LAWS.

The motion was put and carried, and the President declared the Constitution and By-Laws, as printed in the April, 1925, JOURNAL, and as amended by the supplemental report of the Committee on Amendments to the Constitution and By-Laws, and the Reference Committee on Amendments to the Constitution and By-Laws and as amended above, duly and constitutionally adopted.

The Secretary announced the following committees, appointed by the President to introduce the newly elected officers: President-Elect Dr. Keiller, Drs. M. L. Graves, and W. D. Jones; Vice-Presidents Drs. Taylor, Gray and O'Brien, H. W. Cummings, E. H. Cary and N. D. Buie; Secretary Dr. Taylor, Dr. M. M. Morrison; Treasurer Dr. K. H. Beall, Dr. J. W. Burns; Trustee Dr. W. R. Thompson, Dr. S. P. Vineyard; Councilors Drs. Lumpkin, Cunningham, Yeager and Smith, Drs. J. T. Horton, S. E. Thompson, F. U. Painter, C. M. Hall and John S. Turner; Delegates to the A. M. A., Drs. Taylor and Cary, Drs. A. P. Howard and W. D. Jones; Alternate Delegates to the A. M. A., Drs. Foscue and Rice, Drs. John S. Turner and I. C. Chase.

The Secretary: According to the new By-Laws, the President-Elect must appoint certain committeemen and Councilmen, and it is required that this House of Delegates approve his selections.

President-Elect Dr. Rosser: I did not know of these requirements early enough to make the selections, and I wonder if you won't permit me to make the appointments without your ratification.

On motion of Dr. M. M. Morrison of Denison, seconded by Dr. C. M. Covington of Montgomery, the President was directed to make his appointments on an *ad interim* basis.

The President: There being no further business, the House is adjourned, *sine die*.

GENERAL MEETING.

President Dr. Bledsoe called the General Meeting to order at 4:00 p. m., in the Roof Garden of the Stephen F. Austin Hotel.

The President: This General Meeting, as you know, is for the purpose of presenting the newly elected officers. The Secretary will announce the officers elected today by your House of Delegates.

The Secretary: Mr. President, I am directed by the House of Delegates to inform this General Meeting that the following officers have been elected:

INTRODUCTION OF NEWLY ELECTED OFFICERS.

President-Elect, Dr. William Keiller, of Galveston.

Vice-Presidents, Drs. G. B. Taylor of Cameron, C. A. Gray of Bonham, and Minnie C. O'Brien of San Antonio.

Secretary, Dr. Holman Taylor of Fort Worth.

Treasurer, Dr. K. H. Beall of Fort Worth.

Trustee, Dr. W. R. Thompson of Fort Worth.

Councilors, First District, Dr. A. S. Lumpkin of Amarillo; Fifth District, Dr. S. P. Cunningham of San Antonio; Sixth District, Dr. C. P. Yeager of Kingsville; Twelfth District, Dr. N. D. Buie of Marlin; Fifteenth District, Dr. J. K. Smith of Texarkana.

Delegates to the American Medical Association, Drs. Holman Taylor of Fort Worth, and E. H. Cary of Dallas.

Alternate Delegates to the American Medical Association, Drs. G. B. Foscue of Waco, and S. P. Rice of Marlin.

Council on Medical Defense, Dr. F. P. Miller of El Paso.

Next Place of Meeting, Houston.

The President: Committees have been appointed to introduce the newly elected officers. President-Elect Dr. Keiller is not in the room. Of the Vice-Presidents, Dr. Gray is the only one present. Dr. Cary of Dallas will introduce him.

Dr. E. H. Cary of Dallas: It seems that I am to present the only one who really values the distinction of being a Vice-President of this Association. All the others seem to have run away. My good friend, Dr. Rice, after the election of these distinguished Vice-Presidents, made some allusion to one of them. He said, "Of all the good-looking Vice-Presidents, Dr. Minnie O'Brien is the best looking." (Laughter.) I want to say that although my Vice-President does not qualify as a good-looking woman, he is the best looking man that you could have nominated.

In all seriousness, it is a very great pleasure to introduce one whom we all know, and have known so long and so well. He is one of the old war horses of our profession. He has served with some of us who are here today, for the last twenty-five years. It is, indeed, a pleasure to present to you a man not only qualified for the high office of the Vice-Presidency, but a man well qualified to grace the office of the Presidency, Dr. C. A. Gray of Bonham, one of your Vice-Presidents. (Applause).

Dr. C. A. Gray of Bonham: I am not supposed to make a speech, Dr. Cary has said everything that is necessary and quite a good bit more. I want to say how it is that of the three Vice-Presidents elected, I alone happen to be present. I never go back on the job. As far as courage is concerned, I believe I am rather courageous. I have been one of these Republicans ever since I have been in the State of Texas, and I have never been ashamed of it. That sort of thing naturally puts a little backbone in a fellow. (Applause).

The President: Dr. Morrison will introduce the newly elected Secretary.

Dr. M. M. Morrison of Denison: It once was my pleasure and my perplexity, to introduce to this august body a man whose name I did not know and whose personality and history were likewise unknown to me. I only knew that he was a doctor, and that he had been elected to one of the offices of this Association. I gave to that gentleman my heartiest commendation. I knew that a physician who had practiced his profession and loved and served his fellow man, should have honor on earth and peace in Heaven. This evening I am more fortunate. I present to you a man whom I know as a man. I have known him as a friend. I have known him as a doctor. I have known him as a soldier. I know him as a scholar and a gentleman, and you and I know him as the best Secretary in the United States. (Applause). I say without reservation and without flattery to him or to you or to myself, that Holman Taylor is the best informed man on organized medicine or the history of our profession; knows more of its trials and tribulations and more of its victories and successes, than any other man whom I have ever met. I take pleasure in introducing to you a man whom you know already, Holman Taylor of Fort Worth. (Applause).

Secretary Taylor: An old soldier was discussing with some recruit recently this new army, which was to him a thing of perplexity and getting out of bounds fast. He said when he came into the army, you simply signed on the dotted line, held up your hand, and there you were until your hitch was over. But now when you come into the army they scratch you on the arm, and no more smallpox; they shoot some bugs in the other arm, and no more typhoid fever; shoot some more bugs into you, and no more pneumonia. The first thing you know they are going to tattoo a fried egg and mutton chop on your arm and you are rationed for your hitch. (Laughter). I am not going to assume, of course, that I shall enjoy, as I do now, the confidence of your House of Delegates for life; nor do I assume that I would be willing to carry the burden for life. But it is a matter of considerable satisfaction to me, more than you can appreciate, I am sure, that I am able to carry the often onerous duties of this office to the at least not dissatisfaction of your House of Delegates.

I sometimes think we do not understand the position of the Secretary-Editor under the plan that we follow in our organization. He occupies a dual position. He is an employee of the Association, and at the same time a trusted official. He must carry out his orders, as given him by those who employ him; and at the same time many of his functions are those in which he exercises his very best judgment, just as if he were receiving no pay whatsoever. Being in the center of things by virtue of his employment, many problems are put up to him, the solution of which results in a feeling of resentment, which perhaps the Secretary does not merit. We should remember that the Secretary, if not the Editor, functions in accordance with well laid out provisions of our Constitution and By-Laws. He must perform his duties in accordance with the directions of the Board of Trustees, the Board of Councilors, the Council on Legislation and Public Instruction, the Council on Medical Defense and, withal, the President. So it happens that anyone occupying this position for any length of time will sooner or later antagonize so many of the brethren that he will fall under the ban. I am happy, indeed, that I have not suffered materially in this regard. Fortunately, I am not thin-skinned when it comes to being criticised, perhaps for the reason that I reserve the privilege of criticising in return. If I can serve you satisfactorily and you think you can depend on me, I can certainly afford to assume the burden for another three years, and I am highly gratified. I thank you. (Applause).

The President: Dr. Vineyard will introduce Dr. Thompson, the newly elected old Trustee.

Dr. S. P. Vineyard of Amarillo: We have at last discovered perpetual motion. Since 1903 Dr. Thompson has been perpetually in a most important office. It was through him and Dr. Chase, that our splendid JOURNAL was established. He has been on the Board of Trustees, and its Secretary, since that time. It is during that time and through his good management, that we have accumulated the nice surplus of $81,000, plus. I take pleasure in introducing to you Dr. W. R. Thompson, of Fort Worth.

Dr. W. R. Thompson of Fort Worth: I want to say that I take exception to the designation, "old Trustee." However, as Dr. Vineyard has said, I have been continuously in your service for twenty years, as Trustee, and am now elected for another five years. I am sure few of you people would believe that, judging from my appearance. (Laughter). Permit me to say that I enjoy the work. I have no words to express my appreciation of the honor. I thank you. (Applause).

The President: Dr. Hall will introduce Dr. Buie, Councilor for the Twelfth District.

Dr. C. M. Hall of Hico: It is my pleasure to state that your House of Delegates has selected the most tireless, most energetic and the most unselfish member of this organization for the position of Councilor for the Twelfth District. The weather does not get too cold or too hot, too wet or too muddy, or the roads too rough, or the nights too dark, for this faithful servant to visit each and every county medical society in his large territory, to the remotest sticks and forks of the creek. It is my pleasure to introduce to you Dr. N. D. Buie of Marlin. (Applause).

Dr. N. D. Buie of Marlin: Dr. Hall and I represent the country doctors in the State Medical Association.

The further we get from town the better we feel. The Hamilton County Society recently voted to surrender its charter, and dared me to come out and get it. I went out and talked the matter over with them, and Hall is down here telling all these nice stories about me. A man once had a moose, and was exhibiting it around over the country. He charged ten cents for single admission and twenty-five cents family rate. One man came up and paid for a family ticket, and the children started stringing in. Finally the showman stopped him and said, "How many children have you?" He said, "Sir, I have twenty-five children." The man with the moose said, "All right, here is your quarter back, it is worth just as much for my moose to see you as it is for you to see my moose." (Laughter).

The President: Dr. John S. Turner will introduce Dr. J. K. Smith, Councilor for the Fifteenth District.

Dr. John S. Turner of Dallas: I take great pleasure in introducing to you one of the big doctors of the State Medical Association. He is big in many particulars. When he gets into action everybody knows that the State Medical Association is functioning. He comes from the far East. East Texas knows there is a Texas State Medical Association. When he comes to the center of the State, the center of Texas knows there is a State Medical Association. He is thought as much of off in the Panhandle, where he is known, as he is in East Texas. Therefore, I introduce to you this man of peculiar name, who is also peculiar in his ability, Dr. Smith. (Applause).

Dr. J. K. Smith of Texarkana: I am just like Dr. Buie, except I don't have the story.

The President: Dr. Jones will introduce Dr. Taylor, delegate to the American Medical Association.

Dr. W. D. Jones of Dallas: I hate to introduce this Secretary two or three different times. I am going to introduce him now not as Secretary, but as delegate to the American Medical Association. He is one of the most important factors in the House of Delegates of that great organization. (Applause.)

Dr. Holman Taylor of Fort Worth: Perhaps it would not be a bad thing to do to emphasize the importance of the position of delegate to the American Medical Association, our National body, where policies are established and laws are made for us. The American Medical Association needs the delegate, and the State Medical Association needs the delegate. I understand that my position in this instance is an ex-officio position, but I am appreciative of the fact that it is permitted to remain so, nevertheless, and I thank you kindly.

Dr. Howard will introduce Dr. Cary, delegate to the American Medical Association.

Dr. A. P. Howard of Houston: I find myself in the very incongruous position of introducing a man who is nationally and internationally known. Here is a man who has always been a go-getter. Whenever he has gone out to bring something to the State, the thing that he went after came. The House of Delegates has voted to invite the American Medical Association to meet in Texas, in Dallas, next year, and we are sending a messenger who we expect to bring back the bacon. (Applause.)

Dr. E. H. Cary of Dallas: I hope we will be able to create the impression that we ought to be able to create, that the great State of Texas is in a position to entertain the American Medical Association, and if we can do so, I am inclined to think that this great organization, which we all prize so highly, will be very glad to visit the Southwest. I understand that we are going to contend against the small City of New York, which city, I believe, is going to invite the American Medical Association to meet there next year. Having just met in Atlantic City, and having met in Chicago the year before, and San Francisco the year before that, I am inclined to think that we will be successful, as the membership will not likely desire to go back East next year. If that is true, and we can prove to these gentlemen our capacity to entertain them and to care for them, we have a very excellent chance. I expect to join hands with our other delegates, who are very much more capable of presenting this question than I am, and the four of us will pull hard together, boost the game for all it is worth, and vote it over. (Applause.)

The President: Dr. Chase will introduce Dr. Rice, Alternate Delegate to the American Medical Association.

Dr. I. C. Chase of Fort Worth: This is one of our most favored sons, and one of the most loved men in our profession. We would be glad to send him anywhere, and are proud of his reputation. (Applause.)

Dr. S. P. Rice of Marlin: We were at a loss at the windup today, and as I was sitting in quite a high place, in a big chair, I was seen first, and so selected to represent you in the American Medical Association House of Delegates, provided the main delegate doesn't go. I will try and do my best.

The President: If there is no further business to come before this General Meeting, permit me, as your retiring President, to say a word in a personal way. You have honored me more than I deserve, and if my administration has been of any service or has had any merit in it, it is not because of my personal effort. It is due more to the combined effort of the faithful members of this Association who have come to our assistance at my call. And now, it gives me great pleasure to present to you your incoming President, who will lead, guide and direct you during the next twelve months. He is well fitted and will give his entire service to your cause. You know him as well as I do, Dr. Rosser. (Applause).

Address of President Dr. Rosser.

President Rosser: I sincerely thank you, not only for the honor done me one year ago, but for the generosity with which you receive me now. There has never been a moment in my life when I was more cognizant of the fact that no man among us can have a too clear intellect, and more workable and righteous conscience, and too much wisdom for the work which is just before me. In view of the quite full knowledge, I trust, of my own limitations, I approach the task with a diffidence which you may not understand. It humbles me that I have the responsibility which your confidence has made mine. I would not hope at all to succeed with the multitudinous work before us as your leader if I did not feel confident, if I were not assured that I had the unqualified support not only of the officials of this Association, but the rank and file of its membership as well; nor can the medical society itself, unaided by thinking men of the profession, carry on to success the undertaking which we have at hand. I am assured that such coöperation may come from sources somewhat extraneous to our own. Ours is a righteous cause, and a righteous cause will have defenders in times of distress. I am grateful to those who have preceded me. It is unnecessary to mention the names of any of them. I think without exception the State Medical Association has been very wise in its choice of leaders, certainly up until the day of my selection, and I would not criticise your judgment sufficiently to doubt that you at least exercised the best opinions you had at the time. I

must, if possible, justify your choice. I am particularly pleased that President Bledsoe has not only added to the glorious usefulness of our great Association, but has left its machinery intact.

I would not make a reference which would be unpleasant to anyone, but speak of the matter because it will be helpful when we recognize that it is philosophic. We have had some slight eruptions in the House of Delegates during this session. That is not a bad thing. Revolution in government oftentimes brings about a better state of affairs. If government is wrong, it ought to be changed. If it is right, it will be strengthened when it passes through and withstands assaults, either from within or without. Agitation causes our minds to become active. It brings forth and assembles the wisdom which may be combined after being sorted out, and it becomes the property of the organization. I have been assured by those who have felt most keenly the difference during the past administration, that they will be found loyal, faithful and active in perhaps all the enterprises in which we are apt to engage. That is wise. Water does not run up hill; neither does progress turn back so long as it is progress, and the only way for any man to escape the future is to die. Victor Hugo tells us this truth, that no man cares to die physically very soon, and spiritually not at all.

You have seen in your JOURNAL, in the last issue, some principal proposals which I shall lay before our Council. I reiterate them with a little explanation. First, purification of the profession in such particulars, if any, as may need purification; second, reclaiming to membership members who may have lapsed from surmountable cause; third, bringing into membership such honorable, intelligent and legally qualified practitioners of medicine as have heretofore failed to join their local societies; fourth, in coöperation with the State Medical Examining Board, encourage and bring about, if possible, enforcement of the Medical Practice Act. All this is in order now. These are matters to be worked out within the official family, but I am glad to tell you that not one of us will fail to appreciate any suggestion which may come from the humblest member of this body. We all want the wise way. Pioneer work had been done without correlation for a long time. During the administration of Dr. Becton, a campaign to improve the qualities of the Medical Practice Act was conducted, in which many joined, in which many made sacrifices, and it resulted favorably. It was too early to urge the courts to begin prosecutions or to complain at delay. Prosecutions at that time would have been uniformly a failure, because the men upon the juries would not understand, and the medical profession, even as they went to and fro among the people, were not able to answer relevant questions that were propounded. During Dr. Scott's administration it was decided to conduct a campaign to popularize the Medical Practice Act—a campaign of information, for when you have informed people regarding the proper thing, you have popularized that thing in thinking minds. That was necessary. It was thought best during Dr. Bledsoe's administration, and I believe circumstances which followed proved that it was wise, to try to hold the situation intact until the Legislature had met and adjourned, and until a case which involved an important principle of the Medical Practice Act should pass from the trial court to the Supreme Court. One Legislature perfected the law, another Legislature refused in any way to militate against it, and a case has been passed to the Supreme Court, and declared constitutional in all respects. Until the Supreme Court passed upon that point a violator might claim that he believed the law unconstitutional, and that he was not an intentional criminal if he continued in violation. And he might do that with some show of justice and reason. But now notice has been served by the Supreme Court of Texas, and every man who continues to violate that law does so knowing that the highest tribunals in this State class him as he should be classed. There will be nothing radical which the most conservative man would disapprove, I trust. Nothing will be done by me in which your Councils or Board of Trustees, which taken altogether, is our executive council under the new By-Laws, may not find agreeable. We will doubtless work in conjunction with the State Medical Examining Board, a legally constituted official board of the State, to obtain for the people the benefits we had in mind when we began the contest. This thought I leave with you. Whatever is done, no criticisms which could not apply to the efforts to secure the passage of the law, and no criticism which could not apply to the campaign to educate the people regarding it, can lie with either reason or justice against any effort that may be made to see that the law is enforced. Criticism will always come from the dissatisfied and the criminal class. Men who did not know will continue to misunderstand until they are informed. By a vote of 88 to 17 the House of Delegates has approved progressive methods, and I shall feel entirely at liberty to consider that my guide.

One other thing, I want to visit as many districts in the State this year as is possible. I want to be able to say when we assemble for our next consultation, that I have visited every district in the State, and I make this suggestion now, which I shall perhaps later make in the JOURNAL, that when there is a particular reason why I should visit a county society in my official capacity, that the matter will be taken up with the Councilor, so that whatever may be wanted may be attended to with economy in time and travel. I have one other thought. In naming committees I hope to have the advice of those who know about the special matters in hand. For instance, I may ask those who have contributed to our scientific programs for suggestions as to who they would like to have as Chairman and Secretary of the several sections for next year. I think we may establish a precedent in this matter. I hope to introduce some plans which are not now in operation, which may make our institution as democratic as may be. Please advise with me, either personally or by letter. Please criticise me in that kindly way which I know you feel. Please serve with me the great, glorious, commanding and ever expanding State Medical Association of Texas. (Applause.)

Dr. Jno. T. Moore of Houston: I don't know whether it is in order at this time, but we have present with us the President and Secretary of the State Board of Medical Examiners. It seems to me that it would be in keeping with our program to present these gentlemen and have a word from each of them.

The President: We will be very glad to hear from them. Dr. Morrow is President, and Dr. Crowe is Secretary. Gentlemen, the President of the Texas State Medical Examination Board, Dr. Morrow, who will speak to you. (Applause).

ADDRESS OF DR. H. C. MORROW.

Dr. H. C. Morrow of Austin: I have no speech to make. I had no idea that I would be called upon. I want to assure you, however, that I appreciate the honor of addressing you, the greatest body of physicians in this State. I also want to assure you, so far as lies in the power of the State Medical Examining Board, that we will coöperate or take the lead, rather, in enforcing the Medical Practice Act, to which Dr. Rosser has made reference in his speech.

Of course, we want the coöperation of the State Medical Association. So far, admittedly, the enforcement of the law has been a dead letter. The great trouble is to get prosecuting officers to take any action in the matter. The offender is generally very well acquainted with the prosecuting officers; he has more or less standing in his community, and not having any financial inducement in the matter, the prosecuting officer generally lets it pass. However, the Medical Practice Act now provides for that; when the prosecuting officer in any county refuses to do his duty the Attorney General can be asked to designate someone in his department to see that all cases are properly prosecuted.

You can all dig out offenders. Almost all of us know of offenders against the Medical Practice Act, within a stone's throw of where we are practicing, in every county in the State, almost every town in the State. There are some even among our own ranks who should be looked after.

President Rosser: Dr. T. J. Crowe, for many years the invaluable Secretary, my fellow townsman, a good doctor, a conscientious man, the best Secretary in the world except Holman Taylor. (Applause).

ADDRESS OF DR. T. J. CROWE.

Dr. T. J. Crowe of Dallas: Dr. Rosser is exceedingly liberal in his flattery. As Secretary of the State Board of Medical Examiners, I want to say that we have been "rearing to go" for a long time, rearing so much that within the last six months I have had two convictions on my own account. I didn't ask anybody about them. One of these, a gentleman who came here from the State of Illinois, abandoned a wife and tried to marry a girl at Somerset. I got on his trail and couldn't get anything done in the state court, so I took the case to the Federal court. I didn't have the satisfaction of landing the fellow in jail, but collected $1,000.00 of his cash bond money, and the Government of the United States is spending that looking for him. Another of them, a recent visitor to the State, is still in court. Recently a Doctor Ireland from Illinois, visited Texas and advertised all over North Texas to give instruction courses to doctors. I wrote Dr. Ireland last year and advised him not to come again; that we didn't like his methods, unless he was a regular physician. He came back and I had him arrested, and his case is on the docket in Dallas. Just what they will do with him I don't know. The State Board of Medical Examiners has not been active because of your publicity campaign. I believe your campaign has been wonderfully effective, not only in informing the public as to what they need and what they should have, but in informing the Legislature. I think you have done a lot of good work with your Legislature, and I think the result of the last effort on the part of our friends, the chiros, to secure a bill, amply justified the expense incurred in your campaign. I said in your House of Delegates today, that I did not think we ever would be successful with prosecutions until we have a real prosecuting agency. By that I mean that we must have an attorney whose business it is to work up cases, and we must have at least one and possibly two, inspectors to get evidence, to present to the trial court. Until we do that, I don't see any chance to make any great amount of headway in the matter of convictions. County attorneys are rather indifferent unless public sentiment is strongly in favor of prosecutions, and that is one of the things the campaign was for, to create public sentiment. I hope that the present administration will be active in this matter, and I think we are going to get results. Dr. Bledsoe would have given us results if we had not been forced first to get the ground prepared. The ground now is pretty thoroughly prepared, and in the next year you will get results that will amply justify your campaign of education. I thank you. (Applause).

President Rosser: If there are no further matters for deliberation, we stand adjourned *sine die.*

MISCELLANEOUS

INTER-STATE POST GRADUATE ASSEMBLY MEETING.

The Inter-State Post Graduate Assembly of America, directed by the Tri-State District Medical Association, will meet at St. Paul, Minnesota, October 12-16, 1925, both dates, inclusive. The preliminary list of those who will appear on the scientific program includes many names that are quite familiar in the field of medicine, both nationally and internationally.

The Assembly is to be congratulated on the initiative that they have shown in attempting to carry on this postgraduate work on such a high plane, and to be further congratulated upon the thorough and efficient manner in which the work has been conducted. Remember the dates and place of this meeting!

TEXAS STATE BOARD MEDICAL EXAMINATIONS.

The Texas State Board of Medical Examiners will meet to examine applicants to practice medicine and surgery in Texas at the Capitol, Austin, on June 23, 24 and 25, 1925. Applicants must present their diplomas to the Board for inspection at 9 a. m., Tuesday, June 23. Approved applicants must be at the desks assigned to them when the roll of each section is called. The fee for the examination will be $25.50 (only cash, certified checks and post office and express money orders acceptable). This fee must be sent with the application to the Secretary of the Board not later than June 20. All but $2 of this fee will be refunded in case the applicant is not able to appear for the examination.

Medical students presenting certificates of credit from a reputable medical college for the work of the freshman and sophomore years will be admitted to the examination in anatomy, physiology, histology, bacteriology, pathology and chemistry. Those making a general average of 75 per cent in these subjects and not below 50 per cent in any subject, will not be requested to repeat these subjects in the final examination for license. The fee for this examination will be $15, and should be sent with the application to the Secretary. Junior examinees will turn in their oath cards in the envelope provided for that purpose, when their papers on pathology are delivered to the presiding examiner. The seniors' oath card will be turned in with their papers on obstetrics. The following is the schedule of examinations: June 23—Inspection of Diplomas, 9:00 to 10:00 a. m., College Committee; Anatomy, 10:00 to 12:00 a. m., Dr. Cummings; Physiology, 1:45 to 3:45 p. m., Dr. Morrow; Chemistry, 4:00 to 6:00 p. m., Dr. Sherrill; Bacteriology, 8:00 to 10:00 p. m., Dr. Ray. June 24—Histology, 8:00 to 10:00 a. m., Dr. Sherrill; Pathology, 10:15 to 12:15 a. m., Dr. Pittman; Hygiene, 1:45 to 3:45 p. m., Dr. Ray; Surgery, 4:00 to 6:00 p. m., Dr. Cantrell. June 25—Diagnosis, 8:00 to 10:00 a. m., Dr. Watkins; Gynecology, 10:15 to 12:15 a. m., Dr. McLean; Jurisprudence, 1:45 to 3:45 p. m., Dr. Daniel; Obstetrics, 4:00 to 6:00 p. m., Dr. Witt.

LOUISIANA HEALTH CERTIFICATION FOR MARRIAGE.

Louisiana has joined the ranks of States requiring a physical examination and a clean bill of health as a prerequisite to the issuance of a marriage license. At the last session of the Legislature, the law-makers passed the Ducros bill making it compulsory for any male applying for a marriage license to obtain from a licensed physician a certificate showing that he is free from venereal or other constitutional disease.

According to the Division of Venereal Diseases of the United States Public Health Service, such legislation has steadily gained favor since the war, inasmuch as it is a distinct measure to prevent infection of innocent wives and unborn children. The incidence of congenital syphilis and of infant blindness due to gonorrhea, is responsible for the enactment of such laws to prevent venereal diseases. Several states have adopted laws similar to the Louisiana bill. One state only requires the prospective groom to state that he is free from disease. Another stipulates that a certificate of health is necessary only when the applicant has been previously infected with a venereal disease, while the laws of a few states are identical with the Ducros bill.

North Carolina, Oklahoma, Pennsylvania, Indiana, Michigan, Oregon, Alabama and Utah are among the states requiring a physical examination of the male and a certificate of health precedent to the securing of a license to marry.—*U. S. P. H. S. Health News.*

NEWS

Masons Dedicate Room in Marshall Hospital.—The Blue Lodge of the Masonic Order of Marshall donated $500 for the dedication of a room in the new hospital building in that place. This is the second room to be dedicated by the Masonic Lodge, the Gray Commandery having dedicated one some time ago.

United States Civil Service Examination.—The United States Civil Service Commission announces the following open competitive examination: Junior Medical Officer, Assistant Medical Officer, Associate Medical Officer, Medical Officer and Senior Medical Officer. Applications for these examinations will close June 30, 1925, and are for the purpose of filling vacancies in the various branches of the Government service. The entrance salaries range from $1,860 per year for junior medical officer to $5,200 a year for senior medical officer. Competitors will not be required to report for examination at any place but will be rated on their education, training and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. Civil Service Examiners at the postoffice or customhouse in any city.

New Veterans Bureau Hospitals.—Construction of five hospitals for World War veterans, completion of one, and purchase of another will be undertaken shortly by the Veterans Bureau with funds recently made available by Congress. A national training school for the blind also will be built.

A 280-bed neuro-psychiatric hospital is to be erected at Great Lakes, Ill., and a 232-bed tuberculosis hospital for which contracts totaling nearly $1,000,000 recently were awarded, is to be built at San Fernando, Cal.

At a city not yet selected, in District No. 2, comprising Connecticut, New York and New Jersey, a 1,000-bed neuro-psychiatric hospital will be erected, and a hospital to accommodate 300 tuberculosis patients is planned for district No. 10, which includes Minnesota, Montana, North and South Dakota.

Two hundred additional general beds and 100 tubercular beds will be provided at Walter Reed Hospital, Washington, for veterans from the District of Columbia, Maryland, Virginia and West Virginia.

The Bureau's hospital at Aspinwall, Pa., now about half constructed, will be completed with additional quarters and the 300-bed hospital at Muskogee, Okla., built by the Soldiers' Relief Commission of that State and now leased by the Government, will be purchased. The training school for the blind will be built near Baltimore, under present plans, and will have capacity for 100 students. Living quarters for the students are expected to be provided by the Association of Blind Veterans of the World War.—*Dallas News.*

SOCIETY NEWS

Bexar County Medical Society met April 16, with 96 members and 10 visitors present.

Dr. T. R. Sealy of Santa Anna, read a paper on "Diagnosis of the Acute Surgical Abdomen."

Dr. C. C. Cade, opening the discussion, stated that oftentimes the surgeon could not make an exact diagnosis until the abdomen had been opened. The leukocyte count is more frequently above 20,000 in perforated gastric or duodenal ulcer and in pelvic conditions than in acute appendicitis. He had seen cases in which the Murphy dictum, that there was no peristalsis above the point of intestinal obstruction, did not work out. In acute inflammatory conditions the temperature is high at first. Acute pancreatitis causes intense rigidity similar to that seen in perforated peptic ulcer.

Dr. Dudley Jackson thought that in accident cases the blueness around the umbilicus was a good indication of internal hemorrhage. However, the same diagnostic signs will not obtain in every case.

Dr. S. P. Cunningham had recently seen a case of ruptured kidney with a very rigid abdomen. There was blood in the catheterized specimen of urine and dullness over the ruptured kidney. In another case, that of a child who had been sick only six hours, the appendix did not appear very much inflamed macroscopically, but on section it was seen to be markedly infected, thus accounting for the free fluid in the abdomen. There was severe pain in this case but no rigidity as the inflammation did not touch the abdominal wall.

Dr. R. H. Crockett had seen a child die from an intussusception, which competent diagnosticians had pronounced ptomaine poisoning.

In closing, Dr. Sealy stated that he had not laid greater emphasis upon acute pancreatitis and ruptured kidney, because he wished to stress the commoner conditions. The surgeon does not get these cases of "acute abdomens" early enough.

Dr. H. S. Garrett of Marlin, read Dr. N. D. Buie's paper on "Essential Hypertension," as Dr. Buie was unable to be present.

Dr. Lee Rice opened the discussion of this paper. He stated that the etiology, pathology and prognosis in these cases of essential hypertension were as yet little known. Hirshfelder believes that there is some unknown irritant which affects chiefly the afferent blood vessels of the renal glomerulus. Essential hypertension is characterized by a high diastolic as

well as a high systolic pressure. Bleeding in these cases will reduce the systolic pressure from 20 to 50 m.m., but the pressure will rise again in a very short while. The disease usually occurs in people who are highly nervous and energetic and who have accomplished big things in life. These people are usually introspective and inclined to be moody.

Dr. Joe Dildy of Brownwood, read a paper on "The Medical Profession Needs Something; And I Think It's Favorable Publicity." This paper was discussed by Drs. W. B. Russ, Thos. Dorbandt, R. E. Bowen, T. R. Sealy, Dudley Jackson and J. A. McIntosh.

A motion was passed by the Society instructing its Delegates to the State Association, to let it be known at that meeting that Bexar County Medical Society was heartily in favor of spending any reasonable amount of money in publicity and enforcement of the Medical Practice Act. The President appointed a committee consisting of Drs. W. B. Russ, Thos. Dorbandt and J. A. Watts to formulate a plan for carrying on the publicity work in Bexar County.

Drs. Leona Kasten and Henry Celeya were elected to membership.

Bexar County Medical Society met April 30.

Dr. I. S. Kahn reported two unusual cases of asthma. The first of these cases gave a history of having had asthma since childhood. In November, 1924, this patient was found to give a positive reaction to milk, eggs, feathers, cereals and wool. Wool and feathers were eliminated as incidental factors and also pollen, but still the patient showed no improvement. In April, 1924, Dr. Ochsner performed a double cervical sympathectomy, but without any results. The patient returned to Dr. Kahn in 1925, and he began giving pollen extract in 1 to 5000 dilution, doubling the strength of the extract every few days until a solution of 1 to 50 was reached. The patient no longer has to remain indoors, and is free from asthma. Another case was that of a butcher who three years ago had an attack of asthma lasting 1½ hours. A diagnosis of myocarditis and asthma was made as the blood pressure was 210 to 240 and the urine showed casts and albumen. The patient was put to bed and given adrenalin three times daily for ten days. The blood pressure dropped to 150 or 160, and the casts and albumen disappeared from the urine. The patient had a return of his asthma after sitting in a park and his blood pressure went up again, but fell gradually as the asthma improved.

This paper was discussed by Drs. R. H. Crockett, Thos. Dorbandt and E. R. Sherman.

Dr. Kahn, in closing, stated that 84 per cent of his cases of hay fever and 48 per cent of his asthma cases gave positive skin reactions to pollen. The most common pollens are those of the grasses and rag-weed. He stated that in cases of asthma where the patients were shown to be sensitive to feathers and wool, there were some other causative factors besides feathers and wool.

Dr. W. E. Nesbit read a paper on "Essential Tachycardia." He divided the cases of essential tachycardia into two groups. In the first group were those that he classified as physiological tachycardia, caused by fear, anxiety, acute infections and intoxications such as hyperthyroidism, and by exertion. In these cases all the phases of the heart cycle are normal. In the second group of cases, the paroxysms begin without warning and the heart rate is from 100 to 200 per minute. The attack lasts from a few hours to several days, and during the attack there is a feeling of constriction and pain over the heart, radiating to the left shoulder and left arm. The patients are usually nervous after the attacks. A case of paroxysmal auricular flutter can usually be stopped in a few hours by 20 grains of quinidine, but he also had similar cases in which quinidine failed to stop the attack.

Dr. C. D. Steinwinder opened the discussion. He stated that these attacks of paroxysmal tachycardia may end in heart failure. The treatment in these cases is largely empirical. Quinidine will stop some attacks and have no influence in others.

In closing, Dr. Nesbit stated that there was a large emotional factor in the auricular type of case. The ventricular type is almost always associated with severe cardiac lesions and is usually accompanied by low pulse pressure, even as low as 8 m.m. It is important to differentiate between the two types of the diseases. The electrocardiagram will differentiate between the two types. In auricular tachycardia pressure on the vagus or the eyeball may stop the paroxysm.

Dr. C. F. Lehman read a paper on "The Ultra-Violet Light. A Case Report Showing Photosensitization."

Dr. C. S. Venable read a paper on "Periarterial Sympathectomy."

Dr. I. T. Cutter read a paper on "Better Obstetrics."

Dr. S. R. Kaliski read a paper on "Direct and Differential Diagnosis of Thymus Hyperplasia in Early Infancy."

Dr. Yone Soma was elected to membership.

Drs. F. M. Hicks and G. G. Watts were elected honorary members of the Society.

Cameron County Medical Society met April 30, at Harlingen.

Dr. Lyle J. Logue of Houston, read a paper on "Foreign Bodies in the Upper Air Passages and Esophagus."

Dr. Wallace Ralston of Houston, read a paper on "Eye Conditions, especially Strabismus and Cataract."

Dinner was served at 7 p. m. at the Van Noy Cafe.

Dallas County Medical Society met April 9, with 48 members present.

Dr. A. W. Carnes presented the case of a young man 20 years of age, who was mentally subnormal, and who had an impediment in his speech. This case was presented with the idea that some suggestion of possible treatment might be offered.

Dr. George Carlisle reported the case of a woman 40 years of age, whom he had found to be suffering from endocarditis. She had previously been treated for malaria by some physician and had developed a violent delirium due to quinine poisoning.

Mrs. Lewis Weil presented plans to the society for the establishment of a clinic in West Dallas, and requested the coöperation of the society. A committee composed of Dr. W. T. Baker, chairman, and Drs. B. E. Greer and E. B. Strother, was appointed.

The following scientific program was then rendered: "An Unusual Form of Intrathoracic Tuberculosis, a Report of Seven Cases," by Dr. Harold Freed, discussed by Drs. G. L. Carlisle, R. B. Giles, M. D. Bell and Roy Goggans; "Essential Renal Hematuria," by Dr. Edward White, discussed by Dr. George L. Carlisle; "Fracture About the Elbow" (with lantern slides), by Dr. Ben L. Schoolfield, discussed by Drs. J. H. Dorman, T. M. Jarmon and F. W. B. Rockett.

A motion was adopted by the society that its delegates to the State Medical Association be permitted to use their own judgment in the question of the State Association dues.

Dr. C. O. Bailey was elected to membership.

Dallas County Medical Society met April 15 with 30 members present.

The following scientific program was rendered: "Medical Treatment of Hyperthyroidism," by Dr. D. W. Carter, Jr., discussed by Drs. H. M. Winans, R. M. Barton and C. G. Catto; "The Hurry Headache," by Dr. H. M. Winans, discussed by Drs. G. E. Brereton, C. B. Carter and F. H. Newton; "The Use of Acidified Cow's Milk in Infant Feeding," by Dr. J. F. Perkins, discussed by Dr. M. S. Seely.

Dallas County Medical Society met April 23, with 48 members present.

Dr. W. B. Carrell presented a case of scoliosis corrected by treatment and operation. A modified Hibbs fusion operation had been performed with excellent results; an increase of 2½ inches in height having been obtained.

Dr. E. R. Carpenter made a follow-up report on a case of brain abscess previously shown before the society. A few days after the first presentation of the case, another abscess formed, associated with repeated convulsions. This abscess was drained and at the time of the report, the child was apparently well and the cerebral hernia had almost completely retracted.

The following papers were then read: "The Responsibility of the General Practitioner in Cataract and Glaucoma," by Dr. Jno. O. McReynolds; "Acute Brain Injuries," by Dr. C. A. Nash, discussed by Drs. E. R. Carpenter, Frank Harrison and J. F. Ford; "Traumatism of the Head and Brain in Civil Practice," by Dr. G. M. Hackler; "Mechanical Support of the Uterus, Indications and Technique," by Dr. M. S. Seely; "Some Gynecological Problems," by Dr. Elbert Dunlap; "Acidosis," by Dr. Ramsey Moore; "Radiation in Cancer," by Dr. Robt. Milwee.

The former action of the society in requesting its delegates to make an effort to reduce the Association dues was rescinded, and a resolution was unanimously adopted endorsing the publicity campaign of the State Association and pledging the support of Dallas County Medical Society in the campaign to inform the public concerning public health matters and in the enforcement of the Medical Practice Act.

Drs. Thos. E. Cook, Julian H. Morris, G. F. Goff and W. C. Foster were elected to membership.

Eastland County Medical Society met at Eastland, April 21. The following program was rendered:

Invocation, Dr. J. H. Caton, Eastland; "Colonic Anesthesia in General Surgery," Dr. T. G. Jackson, Ranger; "Synergistic Analgesia in Obstetrics," Dr. W. A. Burns, Moran; "Some Observations on Tetanus," Dr. T. H. Thomason, Fort Worth; "Some Phases of the Treatment of Simple Diseases," Dr. J. W. Gregory, Cisco; "Therapy," Dr. Thos. Patterson, Rising Star.

At the conclusion of the scientific program a six o'clock dinner was enjoyed, over which Dr. H. B. Tanner presided as toastmaster.

El Paso County Medical Society met April 4 with 160 physicians and dentists present, as the meeting was a joint one between the Medical Society and the Southwestern Dental Association which latter organization was holding a three-days' convention in El Paso.

Dr. Arthur Black, dean of the Northwestern Dental School, read a paper on "Mouth Infections in Relation to General Health. Dr. Black stated that this subject had received considerable attention from both the medical and dental profession for the last fifteen years. The earliest recognition of the relationship of infected teeth to systemic disease is found in literature when an Assyrian king was informed by his court physician that he must have all his teeth pulled to cure his rheumatism. Dr. Benjamin Rush in his "Practice of Medicine," published in 1818, cites several cases in which patients recovered from diseases following the extraction of their teeth. Dr. Black discussed at some length the anatomy of the teeth and the mode of dental infections, illustrating his talk with diagrams. He stated that infection is carried to the roots of the teeth by the lymphatics, and eventually destroys the peridental membrane and finally the cementum. Chronic infections of the teeth cannot always be diagnosed by means of the *x*-ray alone. Removal of the original focus of infection in the teeth will not cure a secondary infection that is already present, and so too much should not be promised in cases of rheumatism and arthritis. Many physicians and dentists have been too radical in advising extraction of teeth. In a series of 600 adults who were not under treatment by a dentist, 75 per cent had dental infections demonstrable by the *x*-ray, and 53 per cent had pyorrhea alveolaris. Only about 10 per cent of the people of the United States have periodic mouth examinations, and most of these examinations are made by large industrial institutions. Children in the public schools should be instructed by a dental hygienist in the proper care of their teeth. No special diet during pregnancy is advised for the benefit of the child's teeth. A normal, well-balanced diet is all that is necessary. There are no available statistics showing the difference in bottle-fed and breast-fed babies. Hutchinson's teeth, while frequently associated with syphilis, may result from any form of undernourishment during the first year of life.

This paper was discussed by Drs. Paul Gallagher, Branch Craig, W. W. Waite, P. R. Casellas, Scott and J. A. Rawlings.

El Paso County Medical Society met April 13, with 15 members and 2 visitors present.

Dr. G. Werley presented a case of blastomycosis in a Mexican boy 12 years of age. This case was first seen in September, 1924. The patient had showed marked improvement following treatment with iodines and the *x*-ray. At the time the case was presented there were two open sinuses and two healed lesions.

Dr. G. Werley read a paper on "Coronary Infarct and Coronary Occlusion." He reported seven cases of coronary infarct seen post-mortem, and a number of cases that had recovered. Death in anginal cases is often due to coronary obstruction. Many cases of so-called "acute indigestion," "ptomaine poisoning," and "heart failure" are due to coronary infarct.

Dr. Hugh Crouse reported a ease of cavity in the right chest, in which the esophagus, heart and arch were pushed over into the chest cavity.

Dr. Harry Leigh reported a case of cavity due to tuberculosis in the right chest of a child 9 years old, in which the heart was pushed over into the chest cavity.

Dr. R. A. Wilson reported a case of madura foot, and showed some pictures of the case.

Dr. T. Armendariz was elected to membership.

El Paso County Medical Society met April 20 with 22 members present.

Dr. W. L. Brown read a paper on "The Undiagnosed Compressed Fractures of the Vertebra." He stated that such cases were frequently overlooked at the time of the injuries because of the absence of symptoms. Two or three months later when deformity and symptoms appear, the cases are often classed as malingerers. *X*-ray diagnosis can only be satisfactorily made from a lateral view of the fracture. The treatment consists of fixation of the spine after correction of the deformity, if possible, which usually takes at least six months. This case was discussed by Drs. J. W. Cathcart, E. J. Cummins, P. R. Casellas, R. L. Ramey and E. L. Strong.

Dr. Harry Leigh read a paper on "The Study of Apparently Healthy Children of School Age Who Are Highly Sensitized to Tuberculin." He presented a large series of statistics covering cases observed by him during the last four years. A much higher per cent of children are sensitive to tuberculin reaction than is ordinarily suspected. Such children should be kept under observation and treatment for a long period of time. This paper was discussed by Drs. J. W. Laws, W. W. Britton, T. J. McCammant, P. R. Casellas, J. D. Riley, J. A. Rawlings and Scott.

Dr. W. L. Brown reported a case of tuberculous peritonitis in a women 28 years of age which he had seen six years previously. The abdomen had been opened and the tuberculous infection found. She had been treated by heliotherapy and apparently made a good recovery. When seen recently the patient stated that she had had no further trouble. Three weeks ago, however, she became critically ill; there was an enormous enlargement of the liver and the right lung was compressed. The Wassermann was negative; the blood showed 96,800 leukocytes, with 86 per cent of polynuclears. There was no rise in temperature. Under local anesthesia the liver was opened and aspirated, but no abscess was found. At autopsy an enormous liver was seen, probably amyloid (Pathological report not complete), and there was no evidence of the former tuberculous peritonitis, except for a few enlarged mesenteric glands.

El Paso County Medical Society met April 27, 1925.

Dr. F. D. Garrett's paper, "Acidosis and Insulin," was read by the secretary. Dr. Garrett reported several cases of acidosis, in which insulin was used with excellent results. He thought insulin could be used in acidosis and certain cases of pernicious vomiting of pregnancy with results equal to its use in diabetes. The paper was discussed by Dr. E. A. Duncan.

Dr. Hugh Crouse read a paper, "Cancer Treatment; a Regional, Type and Period Problem," which was discussed by Drs. Cathcart and F. P. Miller.

Dr. W. W. Waite read a paper on "Four Primary Pigmented Tumors of the Lungs in 210 Autopsies," which was discussed by Drs. F. P. Miller, Hugh Crouse and Cathcart.

Dr. J. W. Laws made a plea for both financial and moral support of the work of the Gateway Club by the doctors of El Paso.

El Paso County Medical Society met May 11 with 26 members and 2 visitors present.

Dr. G. Werley presented a young Mexican woman with tuberculous cervical glands. There were several scars from old sinuses now healed. The patient had a strong tuberculin reaction, and showed improvement after small doses of tuberculin. This case was discussed by Drs. R. B. Homan, F. P. Miller, E. B. Rogers, J. D. Riley and Scott.

Dr. W. W. Waite read a paper on "Syphilitic Aortitis." This paper was based on 21 cases from 210 autopsies. He stated that such cases are often not diagnosed until post-mortem, and showed slides of the normal aorta and of aortitis, and displayed the pathological specimens from the cases upon which the paper was based. Only two of these cases showed aneurysm of the abdominal aorta, the most frequent site of attack being above the aortic valves and in the arch of the aorta. The intima is first thickened and then a round cell infiltration around the vasa vasorum follows, which gradually obliterates these vessels, the elastic layer suffering most. In the descending aorta, these changes take place gradually so that the damaged tissues have time for fibrous repair. In the ascending aorta, the advance is more rapid, due to the poor blood supply, and if the attack is severe enough, an aneurysm follows the destruction of the elastic layers. This paper was discussed by Drs. Scott, G. Werley, E. B. Rogers and J. D. Riley.

Harris County Medical Society met April 25 with 35 physicians present.

A timely clinical case was reported by Dr. J. R. Bost, and discussed by Drs. W. Lapat, E. M. Arnold and W. M. Strozier.

This was the regular monthly business meeting of the society, and Dr. A. H. Flickwir made the report of the Board of Directors.

After the business program the society was entertained by the Woman's Auxiliary. A very enjoyable program had been prepared, and following the program, refreshments were served.

Harris County Medical Society met May 2, with 58 physicians present.

The following scientific program was then rendered:

"Pulmonary Syphilis," by Dr. J. H. Agnew, discussed by Drs. W. Lapat and J. E. Hodges, closed by Dr. Agnew; "The Anatomical Explanation of Some of the Spheno-Palatine Ganglion Phenomena," by Dr. C. C. Cody, discussed by Dr. W. Lapat, closed by Dr. Cody; "An Operative Procedure for the Repair of Hernia Complicating Permanent Colostomies," by Dr. Frank L. Barnes; "Observations and Experience with the Potter Version," by Dr. H. W. Johnson.

A motion was adopted that the Harris County delegates to the State Association be instructed to oppose the adoption of the new constitution, and that they insist on the constitution being further revised and referred to the component county societies for their consideration.

Harris County Medical Society met May 9, with 63 physicians present.

Dr. S. A. Foote read a paper on "The Upright Position After Labor," which was discussed by Drs. E. N. Gray, Bryant and Frank L. Barnes.

Dr. Benjamin H. Orndoff, of Chicago, read a paper on "The Diagnosis and Significance of the Pathological Appendix." This paper was discussed by Drs. C. P. Harris, R. K. McHenry, John T. Moore, Burton Thorning, Frank L. Barnes, F. B. Smith and Jas. Agnew, and the discussion closed by Dr. Orndoff.

A committee consisting of Drs. A. C. Mynatt, B. F. Coop and Jas. A. Agnew was appointed to draw up resolutions of sympathy concerning the death of Dr. T. W. Shearer.

Harris County Medical Society met May 16 with 47 physicians present.

The following scientific program was rendered:

Dr. W. Lapat reported a case, a piece of steel in the vitreous; Dr. F. A. Wapples reported four cases of amebic dysentery; "Tuberculosis of the Knee, a Case Report," by Dr. Solomon David, discussed by Drs. J. R. Bost and J. H. Graves, closed by Dr. David; "Diathermy in Urology," by Dr. J. C. Alexander, discussed by Drs. J. L. White, Harolde Turner and J. B. Legnard, and closed by Dr. Alexander.

Harris County Medical Society met May 23, with 36 physicians present.

Dr. John L. White read a paper on "Granuloma Inguinale Treated by Sodium-antimony-thyro-glycocholate." This paper was discussed by Drs. Harolde Turner, M. D. Levy and O. L. Norsworthy.

The society then went into business session to consider the question of a Medical Arts Building for Houston. The plans for such a building were presented by Drs. M. W. Hoover and Gavin Hamilton. After considerable discussion by a number of those present, a motion was adopted by the society that the Medical Arts Building project as presented by Drs. Hoover and Hamilton be endorsed by Harris County Medical Society.

Lamar County Medical Society met May 14, with 31 members present.

Dr. J. E. Armstrong read a paper on "Epistaxis." He discussed the causes of this condition and outlined a method of treatment which he considered valuable. This paper was discussed by Drs. T. F. Roberts, J. D. McMillan, R. L. Lewis, S. H. Grant and J. N. Powell.

Dr. J. M. Hooks read a paper on "Resuscitation of Victims of Asphyxiation Due to Carbon-monoxide Poison, and of Electric Shock." Dr. Hooks stated that he did not think the pulmotor or lungmotor were of much value in these cases. This paper was discussed by Drs. M. A. Walker, J. B. Chapman and S. H. Grant.

Dr. O. R. O'Neill read a paper on "The Diagnosis and Treatment of Acute Mastoiditis." This paper was discussed by Drs. T. F. Roberts, J. R. Creed, L. B. Stephens and R. L. Lewis.

Dr. O. W. Roberts of Bardstown reported the finding of round-worms in fresh eggs, and asked if any member had seen any report of the possibility of round-worms being transmitted through the medium of fresh eggs.

Dr. T. W. Buford, delegate to the State Medical Association meeting at Austin, made a report to the society of the transactions of the House of Delegates.

Potter County Medical Society met May 11, 1925, with the following doctors present: Richard Keys, A. J. Caldwell, A. H. Lindsay, L. E. Petty, R. M. Bennett, A. F. Lumpkin, B. M. Flamm, W. Van Swearengen, E. H. Morris, L. V. Dawson, S. P. Vineyard, M. L. Fuller, H. D. Whittington, W. F. Dutton, D. M. Stewart, J. R. Wrather, G. T. Vineyard, R. L. Vineyard, M. A. Biggers, E. A. Johnston, D. Roach, H. H. Latson, R. L. McMeans, R. L. Killough and Wolfram.

Dr. A. H. Lindsay presented a clinical case together with a radiogram of the knee in this case, which had been diagnosed as tuberculosis of the hip and knee joints. This case was discussed by many of those present.

Dr. W. Forrest Dutton read a paper on "Comparative Studies in Treatment of Chronic Ulcerative Tuberculosis of the Lungs." This case was generously discussed.

Dr. H. D. Whittington read a paper on "Surgical Phase of Epilepsy." This paper evoked a spirited discussion concerning the origin and classification of epilepsy.

Dr. S. P. Vineyard, delegate to the State Medical Association, and Dr. A. F. Lumpkin, newly elected Councilor of the Third District, reported on the official activities of the recent meeting of the State Medical Association at Austin.

Dr. S. P. Vineyard reported for the advertising committee, which recommended that the Potter County Medical Society run a roster of their members in the paper, and a motion to that effect was carried.

Tarrant County Medical Society met April 21, with 35 members present.

Dr. Edwin Davis read a paper, which was to be presented to the State Association, on "Intracranial Hemorrhages in the New Born From the Standpoint of the Obstetrician," which was discussed by Drs. Wilmer Allison and L. M. Whitsitt.

Dr. Frank Beall read a paper on "Ovarian Hemorrhages," showing slides of microscopical sections of tissues involved. This was discussed by Dr. S. A. Lundy.

Drs. R. L. Grogan and X. R. Hyde were elected to membership.

Drs. Edwin Davis, R. W. Moore and Victor Bonelli were appointed by the president to recommend a city health officer to the new city manager.

Tarrant County Medical Society met May 19, with 38 members present.

Dr. Frank Sanders read a paper on "A Few Notes Relative to Artificial Pneumothorax." Artificial pneumothorax was recommended in advanced cases of pulmonary tuberculosis, especially those cases in which there were uncontrollable pulmonary hemorrhages.

Dr. John Potts read a paper on "Suggestions Relative to the Diagnosis of Early Curable Pulmonary Tuberculosis." He stressed the fact that nearly all cases of pulmonary tuberculosis have a curable stage and that the principal purpose of diagnosis should be to prevent invalidism by treatment in the curable stage. The definite time of the appearance of each symptom should be recorded in the case history. One should not go wrong often in making a positive diagnosis of tuberculosis, but a negative statement is often very difficult to give. This paper was discussed by Dr. J. F. McVeigh and C. P. Hawkins.

Dr. E. G. Schwarz read a paper on, "Some Phases of Tuberculosis in Children." The symposium on tuberculosis was then discussed by Drs. I. C. Chase, Wm. S. Barcus, X. R. Hyde and R. J. White. The discussion of the three papers was closed by Drs. F. G. Sanders, John Potts and E. G. Schwarz.

Two sets of plans for a Medical Arts Building for Fort Worth were presented to the society, and after considerable discussion the recommendations of the Building Committee were adopted by the society, and this committee authorized to contract with the company they recommended for the construction of the Medical Arts Building at Tenth and Cherry Streets.

A motion was adopted by the society disapproving the reckless speeding of ambulances in the city, and that each ambulance company be notified of the action of the society, as well as local newspapers.

Dr. William Porter Brown was received by transfer from the Galveston County Medical Society.

Wilbarger County Medical Society has elected the following officers for the ensuing year:

Dr. J. E. Dodson, president; Dr. J. C. King, vice-president; Dr. A. C. Rogers, secretary-treasurer.

The Mid-West Texas District Medical Association met at Abilene, April 21-22. The following scientific program was rendered: "Prostatectomy—The Follow-up of 42 Cases," Dr. Charles H. Harris, Fort Worth; "Nonoperative Removal of Ureteral Calculi," Dr. Howard L. Cecil, Dallas; "Some Interesting Urological Cases" (with lantern slide demonstrations), Dr. A. I. Folsom, Dallas; "The Diagnosis and Prognosis in Cataract and Glaucoma," Dr. J. O. McReynolds, Dallas; "The Ophthalmoscope as a Diagnostic Aid," Dr. C. B. Leggett, Abilene; "A Lantern Slide Demonstration of Dermatological Cases," Dr. J. B. Shelmire, Dallas; "Treatment of Lues," Dr. A. McK. Jones, Anson; "Report of Some Interesting Cases," Dr. E. P. Bunkley, Stamford; "Tumors of the Parotid Gland and Their Surgical Treatment," Dr. W. O. Ott, Fort Worth; "Surgery of the Head," Dr. E. R. Carpenter, Dallas; "Psycho-Therapy," Dr. E. M. Wood, Anson; "Insulin in Diabetes," Dr. V. M. Longmire, Temple; "Diagnosis and Treatment of Hyperthyroidism," Dr. C. M. Grigsby, Dallas; "The Use of Iodine in Goitre," Dr. A. C. Scott, Temple; "The Incidence of Amoebic Dysentery in Texas—Its Treatment," Dr. Will S. Horn, Fort Worth; "Interpretation of Cardiac Murmurs," Dr. Robert B. Giles, Dallas.

In connection with this meeting, the Woman's Auxiliary held a business meeting at which Mrs. J. O. McReynolds, President of the State Medical Auxiliary, gave a very interesting and instructive address. The members of the Woman's Auxiliary were entertained by the local auxiliary in a very delightful way with dainty luncheons, and drives about the city. A banquet was tendered the visiting doctors, their

families and friends at the Hotel Grace. One of the social affairs of the meeting was a barbecue given to the doctors and their wives at the Y. W. C. A., the Taylor County Medical Society and its Woman's Auxiliary acting as joint hosts for the occasion.

The next meeting of the Mid-West Texas Medical Association will be October 20-21, at Sweetwater.

The Northeast Texas Medical Society met at Gilmer, April 21. The following scientific program was rendered:

"Periodical Medical Examinations," by Dr. J. N. White, Texarkana; "Some Unusual Features of Frontal Lobe Pathology," by Dr. M. G. Pearce, Galveston; "Cancer of the Rectum" (illustrated with lantern slides), by Dr. Curtice Rosser, Dallas; "The Value of the *X*-ray in the Diagnosis of Diseases," by Dr. S. C. Barrow, Shreveport, La.; "Diagnosis and Treatment of Asthma," by Dr. J. H. Black, Dallas; "Difficult Fracture Cases," by Dr. Guy L. Caldwell, Shreveport, La.; "Surgery of the Gall-Bladder," by Dr. D. S. Webb, Dallas; "Cause of Puerperal Sepsis," by Dr. R. L. Terry, Clarksville; "A Case of Metal Gangrene," by Dr. A. E. Chase, Texarkana.

Dr. H. Leslie Moore of Dallas held a children's clinic in which he brought several cases of malnutrition before the society. He stressed the importance of lactic acid milk and the necessity of boiling milk in the summer time.

The open meeting was held in the First Baptist Church in the evening, and Dr. J. K. Smith, Councilor of the Fifteenth District, gave a very interesting talk before an audience of over three hundred people. He gave a brief history of the practice of scientific medicine, and urged the people not to permit the unqualified to practice medicine in the State, as such a course would necessarily lead to disaster. In closing, he deplored the ignorance of the public concerning medical matters, which made them consult quacks and cultists instead of members of the educated medical profession who had brought the world to its present unprecedented era of enlightenment and good health.

The Woman's Auxiliary of the State Medical Association of Texas met in Seventh Annual Session at the First Presbyterian Church, Austin, May 6, 1925. The meeting was called to order by President Mrs. J. O. McReynolds of Dallas. After the invocation by Reverend J. L. Johnson, Mrs. S. E. Hudson, President of the Travis County Auxiliary, welcomed the delegates and visitors to the City of Austin.

Mrs. A. C. Scott responded in behalf of the Auxiliary. Mrs. Dalton Richardson then announced the social program for the entertainment of the Auxiliary during the meeting, as follows: A luncheon for the visiting ladies at the Country Club; a Garden Party at the Governor's Mansion; President's Reception and Ball, Roof Garden, Stephen F. Austin Hotel, and a drive over the city with visits to the following places of interest: The Wrenn Library, State Capitol, Elizabeth Ney Studio, Confederate Museum, and various other institutions; a Garden Party at Laguna Gloria, the home of Mr. and Mrs. H. H. Sevier. All of the entertainment features were carried out except the Garden Party at Laguna Gloria, which had to be called off on account of a death in the Sevier family.

After the announcement concerning the social program, Dr. M. F. Bledsoe, President of the State Medical Association, in a clear-cut, constructive speech, presented the aims and achievements of the Association. Mrs. Henry B. Trigg of Fort Worth, Secretary of the State Auxiliary, read the minutes of the previous meeting. Mrs. C. W. Simpson of Dallas, Corresponding Secretary, reported 210 letters written and fifteen districts organized, representing at least twenty-six county auxiliaries. The Standing Committees then made their annual reports. These reports showed that the work of the Woman's Auxiliary embraced the following activities: Placing *Hygeia*, the official health magazine of the American Medical Association, in the public schools and libraries; equipping city and county hospitals with bed linen, gowns and layettes; establishing social service committees in schools; contributing to the Red Cross, Y. M. C. A., Traveler's Aid; Better Health and Better Homes associations; Baby Clinics, and the support of Tuberculosis Nurses, stressing the education of midwives; studying defective and deficient State health laws, and coöperating with the medical profession in obtaining vital statistics. The dues of the State Auxiliary were raised to 50 cents, of which 30 cents went to the State treasury and 20 cents to the National treasury.

The Auxiliary then proceeded to the election of officers and the following officers were unanimously elected: President, Mrs. S. A. Collom, Texarkana; President-Elect, Mrs. E. V. DePew, San Antonio; First Vice-President, Mrs. K. V. Kibbie, Fort Worth; Second Vice-President, Mrs. Dalton Richardson, Austin; Third Vice-President, Mrs. C. M. Covington, Montgomery; Fourth Vice-President, Mrs. H. H. Brown, Jr., Yoakum; Recording Secretary, Mrs. E. M. Watts, Texarkana; Treasurer, Mrs. J. W. Cathcart, El Paso; Parliamentarian, Mrs. Boyd Reading, Galveston; Publicity Chairman, Mrs. J. W. Burns, Cuero; Chairman Committee on Health Problems in Education, Mrs. Henry B. Trigg, Fort Worth.

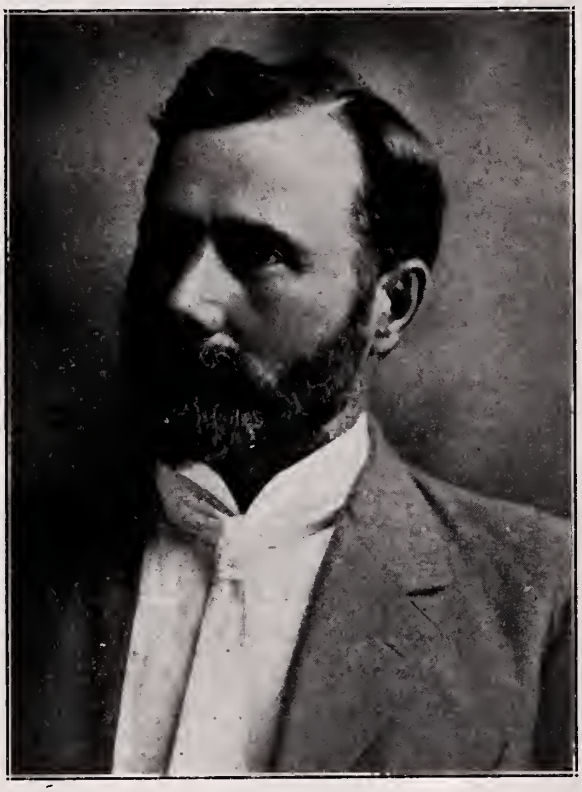
The retiring President, Mrs. J. O. McReynolds of Dallas, then made an address, which will be found on page 60 of the June JOURNAL. Mrs. S. A. Collom, the President-Elect, responded to the address, and her remarks will be found on page 62 of the June JOURNAL.

The following delegates and their alternates from the State Auxiliary to the Auxiliary of the American Medical Association were elected: Mesdames J. O. McReynolds, Dallas; M. L. Graves, Galveston; W. A. Wood, Waco, and L. A. Suggs, Fort Worth. Mrs. J. O. McReynolds was empowered to represent the State Auxiliary at the National Auxiliary meeting.

DEATHS

Dr. T. W. Shearer died at his home in Houston, Texas. May 7, 1925. Dr. Shearer was born in Janesville, Wisconsin, August 24, 1856. He was a lineal descendant of Robert Bruce, the Liberator of Scotland. He received his preliminary education in the public schools of Wisconsin and Iowa, later graduating from the Iowa Industrial School at Ames, in 1881, with the degree of Bachelor of Science. He was Assistant Professor of Chemistry in his Alma Mater after graduation and began the study of medicine while occupying that chair. He graduated in medicine from the College of Physicians and Surgeons of the University of Illinois, at Chicago, in 1884. He began the practice of medicine at Des Moines, Iowa, and while there was State Chemist and also Professor of Chemistry and Toxicology in the College of Physicians and Surgeons of Iowa. In 1887, he moved to Chambers County, Texas, on account of impaired health, and practiced medicine in that county for twenty years. He was an enthusiastic member of the State Medical Association and of the American Medical Association, and was one of the charter members of the South Texas Medical Association, which he served one year as president. In 1907, he moved to Houston, where he practiced up to the time of his death. He was an active member of the Harris County Medical Society, and leaves a host of friends, not only among his clientele but among his fellow physicians. It was said of him

that, "He was always sympathetic and kind and ever ready to aid the suffering of those in distress, day or night, forgetting self in his efforts to do for others." He was an excellent diagnostician, a splendid pathologist and a thorough student in all of his cases. He was devoted to his profession and was never satisfied until he had the latest data on any surgical or medical case. He was a fond and loving



DR. T. W. SHEARER.

father and a faithful husband, being happy and contented in the sanctity of his home and family.

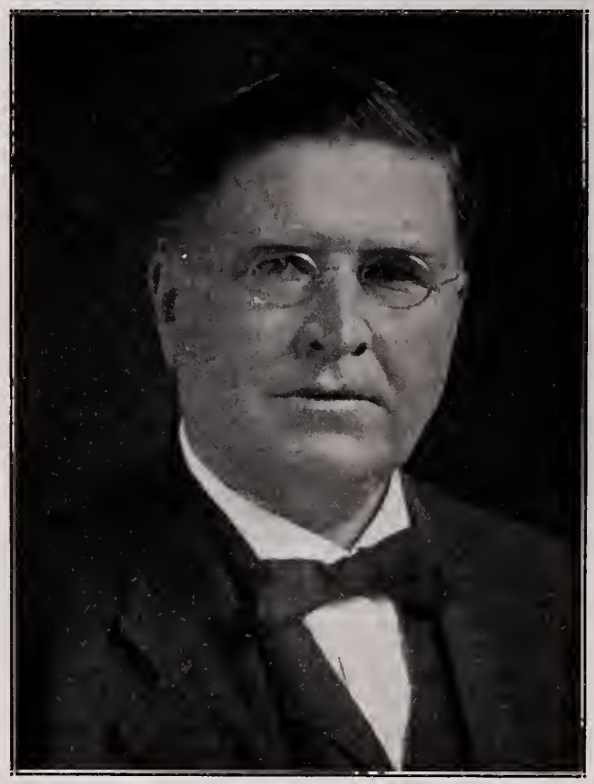
Dr. Shearer was married on June 17, 1885, to Miss Hannabelle Hutton of Windsor, Canada. Mrs. Shearer was a fellow student with Dr. Shearer at the Iowa Industrial College, from which she holds the degree of Bachelor of Science. Dr. Shearer is survived by his wife, five sons, T. Rodney Shearer of Virginia, R. G., R. B., H. A. and R. S. Shearer of Houston; two daughters, Miss Hannabelle Shearer of Houston, and Mrs. A. M. Shearer of Chicago; three brothers, J. D. of Minneapolis, R. B. of Lufkin, and John Shearer of Houston; one sister, Mrs. D. M. Hayden of Ames, Iowa, and six grandchildren.

Dr. Bruce Colbert Wallace died at his home at Athens, Texas, April 3, 1925.

Dr. Wallace was born in West Station, Attala County, Mississippi, October 17, 1868, and was the youngest of ten children. He received his elementary education in the public schools of his home town, and when twenty-one years old entered the I. and G. N. Railroad Hospital at Palestine, where he received his first lessons in medicine. A year later (October, 1890) he entered Tulane University where he studied for a year and then passed his examination for certificate of practice. He located first at Emhouse, Navarro County, where he continud to practice medicine until 1892, when he moved to LaRue. He completed his medical course in the Kentucky School of Medicine at Louisville, from which he graduated in 1893. In 1900 he took a postgraduate course at the New Orleans Polyclinic. In 1917 he moved to Athens, where he continued to practice up to the very day of his death. He had long been a member of Henderson County Medical Society and of the State Medical Association, and was greatly beloved and respected by both his professional brethren and the people of his community. Dr. Wallace had served as a steward in the Methodist Church for twenty-two years. He was an enthusiastic Mason, being a member of the York Rite and a Shriner.

Dr. Wallace had suffered from Bright's disease for several years, but kept up his regular practice up to about two months before his death, and even did some office practice until the very day that he died from an attack of edema of the lungs.

In 1896, Dr. Wallace was married to Miss Linna Campbell, daughter of Dr. S. E. Campbell of Fin-



DR. B. C. WALLACE.

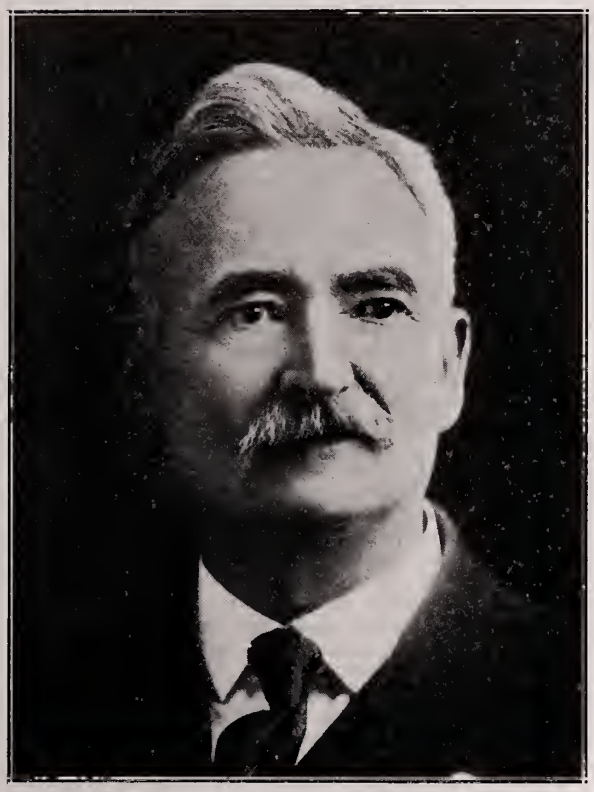
castle, Henderson County, Texas. To this union were born two children.

Dr. Wallace is survived by his wife, two children, Bruce, Jr., and Linna Laura, and by his uncle, Dr. J. C. Hodges, all of Athens.

Dr. R. M. Wickline of Austin, Texas, died in a local hospital in that city, April 22, 1925.

Dr. Wickline was born in Guadalupe County, Texas, in 1850. He received his degree in Medicine from the Memphis Hospital School of Medicine in 1891. He practiced at Johnson County and at St. Elmo, later removing to Austin, where he had practiced for many years. He had long been a prominent member of Travis County Medical Society and of the State Medical Association. In addition to his activities in medical circles, he was one of the most prominent Masons in the State, being Past Master of Onion Creek Masonic Lodge, and of Austin Lodge No. 12, A. F. & A. M. He served as District Deputy Grand Master

in 1908, and was Past High Priest of the Lone Star Chapter, R. A. M. He was a thirty-second degree Mason of the Scottish Rite, and a member of Ben Hur Temple. He was the oldest deacon in years of service on the board of the First Baptist Church.



DR. R. M. WICKLINE.

He is survived by his widow, two sons, R. N. and R. E. Wickline, of Austin; one brother, W. P. Wickline of San Antonio, and two sisters, Mrs. Alice Allen and Mrs. Will Averitte of Houston.

BOOK NOTES

Abt's Pediatrics, by 150 Specialists; Edited by Isaac A. Abt, Professor of Diseases of Children, Northwestern University Medical School, Chicago; Attending Physician, Sarah Morris Hospital for Children, and Michael Reese Hospital, Chicago. Set complete in eight 8vo. volumes, totaling 8,000 pages, with 1,500 illustrations and special index volume free.

Volume VI contains 736 pages with 150 illustrations, 8vo. cloth. Price, $10.00. W. B. Saunders Company, Publishers, Philadelphia and London, 1925.

Volume VII contains 789 pages with 70 illustrations, 8vo. cloth. Price, $10.00. W. B. Saunders Company, Publishers, Philadelphia and London, 1925.

This work of Abt is undoubtedly the most pretentious that has ever been offered in the field of pediatrics. So complete are the various articles that there is little need to look elsewhere for an authoritative account of the subject under discussion.

Volume VI is devoted largely to the exanthemata. Besides the chapter on communicable diseases, the subject of general, local and spinal anesthesia in children is taken up, and also the pecularities of surgery in childhood, fetal malformations, vulvovaginitis and arthritis deformities. The book is splendidly illustrated. Those misguided fanatics who do not believe in vaccination against smallpox should see the excellent photographs of cases of smallpox occurring in unvaccinated children, most of whom died. The description of intubation in diphtheria is also splendidly illustrated by actual photographs and röentgenograms, as well as by schematic drawings. These illustrations aid greatly in the description of the important emergency operation of intubation which every general practitioner should know how to perform.

Volume VII deals with the following subjects: Physiology of the Nervous System; Surgery of the Head, Spine, Brain and Spinal Cord; Diseases of the Nervous System; Psycho-Pathology of the Child; Defects of Speech and Sexual Life of the Child.

We await with interest the remaining volume of this most remarkable work.

Child-Health Library, in 10 pocket-size volumes, brown imitation leather. I—Pre-Natal Care and the Baby's Birth, by Harbeck Halsted, M. D.; II—Babies—Their Feeding and Care, by Louis C. Schroeder, M. D.; III—The Neglected Age—The Child from Two to Six, by Bernard S. Denzer, M. D.; IV—Dangers of the School Age, by Alice Asserson, M. D.; V—Communicable Diseases of Childhood, by Stafford McLean, M. D.; VI—Hygiene of the Mouth and Teeth, by Thaddeus P. Hyatt, D. D. S.; VII—What Children of Various Ages Should Eat, by Lucy H. Gillett, M. A.; VIII—How Children Ought to Grow, by John C. Gebhart; IX—Psychology of the Child, by David Mitchell, Ph. D.; X—Educational Problems, by David Mitchell, Ph. D. Price, 30 cents per volume. Robert K. Haas, Inc., Publishers (formerly Little Leather Library Corporation), 218 W. 40th Street, New York, N. Y.

This attractive little series of pocket-size volumes on the care of the infant and child is well worth the price asked for it. The books are all written by recognized authors and the advice given is sound and scientific. The binding is quite similar to that of the "Little Leather Library," which has proved so popular. Attractive ivory finished metal book ends are furnished those purchasing the series of 10 volumes.

The Crippled Hand and Arm. A Monograph on the Various Types of Deformities of the Hand and Arm as a Result from Abnormal Development, Injuries and Disease, for the Use of the Practitioner and Surgeon. By Carl Beck, M. D. 8vo., cloth, 247 pages, 302 illustrations, some of which are color plates. Price, $7.00. J. B. Lippincott Company, Philadelphia, 1925.

The volume begins with a brief and somewhat superficial discussion of the anatomy and physiology of the hand, forearm and arm. Next is taken up the common birth deformities of the upper extremities, with a brief discussion of their embryological explanation. Appropriate treatment is outlined for such deformities, which is clearly depicted by a number of excellent illustrations. The bulk of the volume is taken up with injuries to the hand, forearm and arm, and of the method of treatment employed. The author has evidently had a large experience in reconstructive surgery, and his work on the hand and arm should prove inspiring to those engaged in this phase of surgery. The author emphasizes the fact so often overlooked by the uninitiated, that functional results are always paramount to cosmetic appearance.

Diseases of the Male Organs of Generation. By Kenneth M. Walker, F. R. C. S., M. A., M. B., B. C.; Hunterian Professor, Royal College of Surgeons, 1911, 1922, 1924. 12mo., cloth, 234 pages, illustrated. Price, $4.00 net. Oxford University Press, American Branch, 35 West 32nd Street, New York City, N. Y.

In this work the author confines himself entirely to diseases of the male generative organs and does not deal with the strictly urinary organs. He also states that he has omitted those diseases usually classed as venereal, because "these diseases have become the subject of a special study." The book is written in a very entertaining style and is evidently the result of careful study as well as wide experience. The author's views on debated questions involving moral issues are clearly expressed and commendably frank. While one may differ with the author in some of his opinions, as well as some of his conclusions, he can have little doubt of the author's sincerity. The book is admirably illustrated and will be found well worth reading.

Handbook of Modern Treatment and Medical Formulary. A Condensed and Comprehensive Manual of Practical Formulas and General Remedial Measures. By W. B. Campbell, M. D., formerly Resident Physician at the Methodist Episcopal Hospital of Philadelphia. Seventh Revised and Enlarged Edition. By John C. Rommel, M. D., and C. E. Hoffman, Ph. M. 8vo., cloth, 694 pages. Price, $5.00 net. F. A. Davis Company, Publishers, Philadelphia, Penn.

In this work diseases are taken up alphabetically and a brief discussion of the treatment of each, together with the prescriptions used, is given. The prescriptions are written in both the apothecaries' and the metric system. Although there is no question concerning the superiority of the metric system, the apothecaries' measures are so generally entrenched in the practice of medicine in this country that it will probably be many years—if ever—before the metric supercedes it. The prescriptions given are carefully selected, and this book should prove of value not only to the young physician, but also to the busy practitioner, as a ready reference book of practical therapeutics. The fact that the volume has gone through a seventh edition is an indication of its popularity.

Diseases of the Heart. By Henri Vaquez, Professor of the Faculty of Medicine of Paris, Translated and Edited by George F. Laidlaw, M. D., Associate Physician to the Fifth Avenue Hospital, New York City, with an Introduction by William S. Thayer, M. D., F. R. C. P. I. (Hon.), Johns Hopkins Hospital, Baltimore, Maryland. 8vo., cloth, 743 pages, illustrated. Price, $8.50 net. W. B. Saunders Company, Philadelphia and London, 1924.

This volume is one of the most complete works on cardiology that we have ever seen. Professor Vaquez's reputation in his chosen field of diseases of the heart makes what he has to say of special interest. One is impressed with the completeness of each subject discussed in the book and with the care with which the author has endeavored to give proper credit for notable work in heart diseases, regardless of nationality. Of special interest is that chapter which deals with one of the most elusive and spectacular as well as fatal diseases, angina pectoris. The author classifies angina pectoris into two great varieties—angina pectoris of effort, and angina pectoris of decubitus. The book is replete with fine illustrations, among which are many excellent electrocardiograms. Those who are interested in the heart will find in this volume a wellspring of information. The work is enlivened with descriptions of the author's clinical cases. The keenness of the author's observations and his attention to the minutia which might be considered unimportant by the careless observer, reminds one of that great English cardiologist, the late Sir James Mac Kenzie. We know of no greater tribute that we can pay to Dr. Vaquez than this.

The Medical Interpreter. A Quarterly Digest of Medicine and Surgery, Domestic and Foreign. Selected Practical Foreign Medical and Surgical Literature. By Albert Allemann, A. B., M. D., Principal Assistant Librarian, Surgeon General's Library, Army Medical Museum; Co-Editor Index Medicus; Editor-in-Chief, Washington, D. C. Recent Practical Advances and Attitudes in Medicine and Surgery. Volume No. VIII, 8vo., cloth, illustrated. The Medical Interpreter, Washington, D. C.

In the foreword of this volume of the Medical Interpreter the author states that a reasonable familiarity with the American literature is presupposed, and so more attention is paid to the achievements of other nations. The Medical Interpreter renders a splendid service in that it translates into English abstracts from the best work of the medical profession of other nations, thus rendering available to the English speaking profession a vast fund of information that might otherwise be buried in a foreign tongue. The first portion of the book, comprising something over 100 pages, is taken up with the excellent monograph on amputations, by Norman Thomas Kirk, M. D., F. A. C. S., Major Medical Corps, U. S. Army. This portion of the book has been published as a separate volume also, and was reviewed in the December, 1924, number of the JOURNAL. The variety of subjects discussed in the remaining and larger part of the book is so great as to preclude their mention in a review of this kind. The Medical Interpreter without doubt fulfills a great mission in keeping the profession of our country abreast of the best current foreign medical literature. We are informed that this splendid service is being enjoyed by an ever increasing army of subscribers.

Operative Surgery. By John Shelton Horsley, M. D., F. A. C. S.; Attending Surgeon, St. Elizabeth's Hospital, Richmond, Va. Second Edition. 8vo., cloth, 784 pages, 666 illustrations. Price $12.50. C. V. Mosby Company, St. Louis, 1924.

While it is no longer possible to cover the ever broadening field of operative surgery completely in one volume, this work by Dr. Horsley covers the field in general well. The book is not merely a collection of operations performed by others, but is largely a result of the author's own remarkable experience in a long and active career as a surgeon. The author's own views, however, do not prevent him from seeing and using the good points in the work of others. The volume is replete with the newer operations, such as Evarts A. Graham's pulmonary lobectomy, Cutler's valvotomy for mitral stenosis, and Crile's partial lobectomy of the thyroid. One cannot but be impressed with the author's frankness in discussing the relative merits of operations devised by himself and those devised by others. Many of the operations described are contained in no other textbook on surgery. The numerous illustrations are well chosen and well executed. Altogether the book is an excellent one, and will doubtless enjoy a deserved popularity.

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Brown, M. L., Brownwood.
Bullard, C. C., Brownwood.
*Burke, F. M., Brownwood.
*Campbell, J. M., Goldthwaite.
Coble, R. L., Zephyr.
Daughety, Jewel, Brownwood.
*Dildy, Joe E., Brownwood.
Fowler, B. A., Brownwood.
Gray, C. W., Brownwood.
Herrington, J. L., Mullin.
Holder, T. D., Bangs.
Horn, J. M., Brownwood.
Howard, I. M., Brownwood.
*Lobstein, H. L., Brownwood.
*Locker, H. L., Brownwood.
*Mayo, O. N., Brownwood.
Maxwell, E. L., Brownwood.
McDaniel, H. M., May.
Paige, W. H., Brownwood.
Pier, T. J., Brownwood.
Shelton, B. M. (Pres.), Brownwood.
Sonendriker, E. T., Bangs.
Snyder, Ned, Brownwood.
Taylor, A. L., Brownwood.
*Tottenham, J. W. (Sec.), Brownwood.

COLEMAN COUNTY MEDICAL SOCIETY.

Allison, L. P., Coleman.
Aston, S. N., Coleman.
Bailey, R., Coleman.
Cochran, R. H., Coleman.
Hays, T. M., Santa Anna.
Holland, W. F., Santa Anna.
Jennings, W. L., Coleman.
*Lovelady, R. R., Santa Anna.
Mitchell, H. H., Valera.
Nichols, John M. (Sec.), Coleman.
Sealy, T. Richard, Santa Anna.
Smith, C. E., Talpa.
Tyson, Jason (Pres.), Santa Anna.
Tyson, John, Cross Plains.

LAMPASAS COUNTY MEDICAL SOCIETY.

Beaumont, E. C., San Saba.
*Bivins, L. L., Copperas Cove.
Black, D. W., Lampasas.
*Edens, H. L., Lampasas.
*Francis, W. D. (Pres.), Lampasas.
*Gaddy, H. R., Lampasas.
Hicks, J. T., Moline.
*Kirby, O. A., Lometa.
Landrum, M. M., Lampasas.
Pearce, Boyd F., Izoro.
Taylor, H. H., San Saba.
*Townsen, J. Garrett (Sec.), Lampasas.
*Willerson, J. E., Lampasas.

MENARD-KIMBALL COUNTY MEDICAL SOCIETY.

Leggett, J. A. (Sec.), Menard.
Burt, Fred, Junction.

McCULLOCH COUNTY MEDICAL SOCIETY.

*Anderson, J. S. (Sec.), Brady.
Baze, P. A., Mason.
Beakley, B. B., Melvin.
*George, Robert J., Fredonia.
Granville, J. B., Brady.
Hutchinson, J. L. (Pres.), Pontotoc.
Jackson, O. C., Voca.
*Land, Wm., Lohn.
McCall, J. G., Brady.
Powell, J. E., Rockwood.

RUNNELS COUNTY MEDICAL SOCIETY.

Barron, John, Wingate.
*Blasdell, J. W., Ballinger.
Cheatham, A. B., Millersview.
Dixon, J. W. (Pres.), Winters.
Douglas, J. G., Ballinger.
Hale, F. M., Ballinger.
*Halley, W. B., Ballinger.
Jennings, T. V., Winters.
Lasater, O. R. (Sec.), Ballinger.
Love, A. S., Ballinger.
Macune, J. W., Ballinger.
Rives, C. T., Winters.
Sanders, W. D., Winters.
Shiller, J. J., Rowena.
Watson, C. A., Ballinger.

TOM GREEN COUNTY MEDICAL SOCIETY.

*Batts, E. L., San Angelo.
Chaffin, J. B., San Angelo.
Chambers, Wm. F., San Angelo.
Clayton, A. W., San Angelo.
Cobb, W. W., San Angelo.
Cornick, Boyd, San Angelo.
*DeLong, A. C., San Angelo.
Eaton, C. E., Robert Lee.
Everitt, Washington B., Sterling City.
*Fowler, David D., Paint Rock.
Godbey, Martin V., San Angelo.
Herndon, Julian H., Miles.
*Hess, David L., San Angelo.
Hinde, Hubbard K. (Pres.), San Angelo.
Hixson, Jesse S., San Angelo.
Horney, Harlan, San Angelo.
Keyes, Claude T., San Angelo.
Lewis, George L., San Angelo.
Marberry, Andrew J., San Angelo.
Mays, Charles E., San Angelo.
McAnulty, James P. (Sec.), San Angelo.
*McKnight, Joseph B., Sanatorium.
Nibling, George W., San Angelo.
Patton, Walter D., Eldorado.
Rush, Henry P., San Angelo.
*Shotts, Thomas D., San Angelo.
*Turney, M. L., Alpine.
Wardlaw, Herbert R., San Angelo.
Williams, John M., San Angelo.
*Womack, Clifford T., San Angelo.
Wood, Grover C., San Angelo.
Yates, General M., San Angelo.

FIFTH OR SAN ANTONIO DISTRICT.

Dr. S. P. Cunningham, San Antonio, Councilor.

ATASCOSA COUNTY MEDICAL SOCIETY.

Guynes, J. T. (Sec.), Jourdanton.
Irwin, C. M., Charlotte.
*Mann, R. E. Pleasanton.
*Shotts, C. C., Poteet.
Touchstone, R. B., Lytle.
*Ware, T. P., Somerset.
Whittet, Mary J. (Pres.), Anchorage.

BEXAR COUNTY MEDICAL SOCIETY.

*Adams, Eldridge, San Antonio.
*Adams, R. Stuart (Sec.), San Antonio.
Allin, F. A., San Antonio.
Anderson, Jas. L., San Antonio.
*Applewhite, S. C., San Antonio.
*Arendt, E. J., San Antonio.
Atkinson, D. T., San Antonio.
*Barron, W. M., San Antonio.
Bassett, W. M., San Antonio.
Beakley, S. S., San Antonio.
Beck, L. K., San Antonio.
Beckmeyer, J. F., San Antonio.
Bennett, W. R., San Antonio.
*Berchelmann, A., San Antonio.
Berrey, D., San Antonio.
Betts, C. E., San Antonio.
*Biggar, J. H., San Antonio.
Bliem, M. J., San Antonio.
*Boehs, C. J., San Antonio.
*Bowen, R. E., San Antonio.
Bowen, P. G., San Antonio.
Brassell, T. C., San Antonio.
Braunnagel, J., San Antonio.
Breeding, A. L., San Antonio.
*Bronson, A. S., San Antonio.
*Brown, A. A., San Antonio.
Brustad, L. A., San Antonio.
Burg, E. M., San Antonio.
Burg, Sigmund, San Antonio.
Burk, W. E., San Antonio.
*Burleson, J. H., San Antonio.
Bush, H. M., San Antonio.
*Cade, C. C., San Antonio.
*Cade, W. H., San Antonio.
Campbell, C. A. R., San Antonio.
Cassity, J. C., San Antonio.
*Cayo, E. A., San Antonio.
*Cayo, E. P., San Antonio.
Celaya, Henry, San Antonio.
Cerna, David, San Antonio.
Chattan, E. A., San Antonio.
*Clark, A. F., San Antonio.
Cook, Clara G., San Antonio.
Cook, Paul, San Antonio.
*Cornick, Geo. B., San Antonio.
Cotham, C. M., San Antonio.
Coyle, J. E., San Antonio.
*Crockett, R. H., San Antonio.
*Cross, Geo. W., Yorktown.
Crossley, S. W., San Antonio.
*Cunningham, S. P., San Antonio.
*Cutter, I. T., San Antonio.
Davidson, A. M., San Antonio.
Decker, C. M., San Antonio.
*De Pew, E. V., San Antonio.
Dinwiddie, R. L., San Antonio.
*Dorbandt, Thos., San Antonio.
Dreiss, A. M., San Antonio.
Dumas, E. D., San Antonio.
Durant, I. E., San Antonio.
*Ellis, J. W., San Antonio.
Elmendorf, E. H., San Antonio.
*Evans, E. O., San Antonio.
*Farmer, W. C., San Antonio.
Felder, J. L., San Antonio.
Forbess, M. A., San Antonio.
Frey, Conrad, Hamilton.
Garnett, M. L., Mexico City, Mexico.
Goeth, R. A., San Antonio.
*Goode, J. W., San Antonio.
*Goodson, T. N., San Antonio.
Goodwin, R. T., San Antonio.
Gough, H. W., San Antonio.
Graves, Amos, San Antonio.
Grimland, G. A., San Antonio.
Gwinn, Geo. E., San Antonio.
*Haggard, F. N., San Antonio.
Haley, J. F., San Antonio.
Hamilton, W. S., San Antonio.
*Hargis, W. H., San Antonio.
*Harper, Mary C., San Antonio.
Heck, W. H., San Antonio.
Herff, Adolph, San Antonio.
Herff, F. P., San Antonio.
Herff, Jno. B., San Antonio.
Hicks, F. M., San Antonio.
Hicks, W. D., San Antonio.
*Hill, H. P., San Antonio.
*Hill, W. H., San Antonio.
*Hill, L. D., San Antonio.
Hirschfield, L., San Antonio.
Hull, A. O., San Antonio.
Hull, Theo. Y., San Antonio.
*Jackson, Dudley, San Antonio.
*Jackson, L. B., San Antonio.
Jackson, Martha Beal, San Antonio.
*Jackson, R. S., San Antonio.
Jewell, R. C., San Antonio.
*Johnson, Allen, San Antonio.
Johnson, G. W., San Antonio.
Johnson, G. L., San Antonio.
Johnson, H. McC., San Antonio.
*Judkins, O. H., San Antonio.
*Kahn, I. S., San Antonio.
*Kaliski, S. R., San Antonio.
Kasten, Leona, San Antonio.
*Kelley, Cole, San Antonio.
Kenney, J. W., San Antonio.
Kenney, Nat M., San Antonio.
*King, W. A., San Antonio.
Kitowski, C. B., San Antonio.
Klieforth, F. H., San Antonio.
*Knapp, D. R., San Antonio.
Lankford, J. S., San Antonio.
Largen, Douglas, San Antonio.
*Lehman, C. F., San Antonio.
Lochte, E. R., San Antonio.
*Lowry, S. T., San Antonio.
*Luter, Wm. E., San Antonio.
Manes, O. B., San Antonio.
*Manhoff, L. J., San Antonio.
Marshall, R. M., San Antonio.
McCamish, E. W., San Antonio.
*McCorkle, R. G., San Antonio.
McDaniel, A. C., San Antonio.
McGlasson, I. L., San Antonio.
*McIntosh, J. A. (Pres.), San Antonio.
Merrick, E. H., San Antonio.
Milburn, C. L., San Antonio.
Miller, Jas. M., San Antonio.
Miller, Emma T., San Antonio.
Miller, J. B., San Antonio.
*Moody, T. L., San Antonio.
*Moore, J. M., San Antonio.
Morrissey, A. J., San Antonio.
Mueller, E. L., San Antonio.
*Nesbit, Wm. E., San Antonio.
Nicholson, J. R., San Antonio.
*Nixon, J. W., Jr., San Antonio.
Nixon, P. I., San Antonio.
Noster, A. H., San Antonio.
*Nunn, J. A., San Antonio.
*O'Brien, Minnie C., San Antonio.
*Ogilvie, H. H., San Antonio.
Oldham, J. P., San Antonio.
Ostendorf, W. A., San Antonio.
Osterhout, Paul, San Antonio.
*Pagenstecher, G. A., San Antonio.
*Paloma, Valeriano, San Antonio.
Parker, T. T., San Antonio.
Parsons, W. H., San Antonio.
*Paschal, F., San Antonio.
*Paschal, Frank, Jr., San Antonio.
*Paschal, Geo. H., San Antonio.
Phillips, H. A., San Antonio.
*Potthast, O. J., San Antonio.
Powers, V. B., San Antonio.
Powell, E. T., San Antonio.
*Pridgen, J. L., San Antonio.
*Reagan, H. H., San Antonio.
Redmond, F. H., San Antonio.
*Rice, Lee, San Antonio.
Ricks, Geo. N., San Antonio.
*Roan, Omer, San Antonio.
Robbie, Mary K., San Antonio.
Roberts, R. A., San Antonio.
Rosebrough, F. H., San Antonio.
*Ross, Rex R., San Antonio.
*Russ, W. B., San Antonio.
Russell, D. A., San Antonio.
Sainz, Daniel, San Antonio.
*Scull, C. E., San Antonio.
Sharp, T. H., San Antonio.
Shaw, Thad, San Antonio.
*Shelton, J. H., San Antonio.
Shepherd, W. F., San Antonio.
*Shipman, E. D., San Antonio.
Shropshire, L. L., San Antonio.
*Smith, B. F., San Antonio.
Smith, R. K., Elmendorf.
Soma, Yone, San Antonio.
*Sorrell, F. W., San Antonio.
Southgate, Jessie, San Antonio.
Spring, J. V., San Antonio.
Stansell, Ivy, San Antonio.
Steele, J. S., San Antonio.
Steinwinder, C. D., San Antonio.
*Stieler, Albert, San Antonio.
*Stokes, W. B., San Antonio.
*Stout, B. F., San Antonio.
Strayhorn, J. M., San Antonio.
*Sykes, E. M., San Antonio.
Taylor, C. W., San Antonio.
Terrell, Frederick, San Antonio.
Thomson, F. L., San Antonio.
*Timmins, O. H., San Antonio.
*Venable, C. S., San Antonio.
*Venable, J. M., San Antonio.
Wall, J. A., San Antonio.
Walsh, F. C., San Antonio.
*Walthall, T. J., San Antonio.
Watts, G. Graham, San Antonio.
Watts, J. A., San Antonio.
*Weinfield, L. M., San Antonio.
Wentz, G. W., Lyford.
Whitacre, Stanley, San Antonio.
*Williamson, C. M., San Antonio.
*Wilson, Homer T., San Antonio.
Witte, B. E., San Antonio.
Wolf, W. M., San Antonio.
Wyneken, H. O., San Antonio.

COMAL COUNTY MEDICAL SOCIETY.

*Barnwell, J. F., Johnson City.
*Bergfeld, A. W. C., New Braunfels.
*Fink, Fredrick, New Braunfels.
*Garwood, A., New Braunfels.
*Hagler, M. C., New Braunfels.
Hinman, A. J., (Sec.), New Braunfels.
*Willie, L. G., (Pres.), New Braunfels.
Wright, R., New Braunfels.

GONZALES COUNTY MEDICAL SOCIETY.

*Brooks, R. C., Waelder.
Dexter, L. G., Harwood.
*Dawe, W. T., (Sec.), Gonzales.
Dunning, W. T., Gonzales.
*Elder, N. A., Nixon.
Fouts, J. J., Gonzales.
Graham, G., Beaumont.
*Holmes, Geo., Gonzales.
Hurley, H. P., Smiley.
*Littlefield, J. B., (Pres.), Nixon.
Littlefield, V. C., Nixon.
Maness, J. A., Gonzales.
Mannering, M., Cheapside.
Parr, A. B., Gonzales.
Smith, J. C., Gonzales.
*Stahl, L. J., Gonzales.

GAUDALUPE COUNTY MEDICAL SOCIETY.

*Anderson, R. B., Seguin.
Brandenberger, M. B., Seguin.
Gatlin, E. N., Kingsbury.
*Graham, B. L., Devine.
Knolle, R. L., (Pres.), Seguin.
*Karbach, F. R., (Sec.), Marion.
*Poth, N. A., Seguin.
*Randolph, V. P., Cibolo.
*Raetsch, C. W., Seguin.
Williamson, C., Seguin.
Lackey, G. M., Staples.
Neighbors, A. H., Seguin.

KARNES-WILSON COUNTY MEDICAL SOCIETY.

Cook, John A., Gillett.
Hammack, R. L., Kenedy.
*Hickle, W. F., Kenedy.
Hutchinson, W. J., Poth.
*Kent, C. M., Kenedy.
King, S. A., Karnes City.
Martin, R. G., Lavernia.
Martinez, P., Kenedy.
Oxford, J. W., Floresville.
Pressley, T. A., Runge.
Rushing, H., Runge.
Sparks, J. E., Floresville.
Ware, Ella, Stockdale.
Willburn, D. Y., (Pres.), Runge.
Young, E. R., Charco.
Youngblood, R. C., (Sec.), Falls City.

KERR-KENDALL-GILLESPIE-BANDERA COUNTY MEDICAL SOCIETY.

Butler, J. O., Bandera.
*Erwin, J. H., (Pres.), Bandera.
Gardner, Jno. N., Sour Lake.
Harzke, O. F., Comfort.
Jackson, Jno. D., (Sec.), Kerrville.
Jones, C. C., Comfort.
Mayhugh, I., Kerrville.
*McDonald, J. E., Kerrville.
Noll, Julius, Kerrville.
Nooe, J. F., Boerne.
Palmer, E. E., Kerrville.
Peden, J. E., Fredericksburg.
Roberts, A. A., Kerrville.
Secor, Wm. Lee, Kerrville.
Sherrill, C. A., Medina.
Swazey, H. Y., Kerrville.
*Thompson, S. E., Kerrville.

LaSALLE-FRIO-DIMMITT-McMULLEN COUNTY MEDICAL SOCIETY.

Barnard, W. L., Carrizo Springs.
Beall, J. E., Pearsall.
Fay, H. W., (Sec.), Dilley.
Hargus, J. W., Asherton.
*Howard, E. M. (Pres.), Pearsall.
Lightsey, J. N., Cotulla.
Morrow, W. H., Cotulla.
*Pickett, B. E., Big Wells.
Sanders, J. T., Dilley.
Verdier, W. A., Asherton.
Williamson, L. C., Pearsall.
Woods, G. S., Devine.

MEDINA - UVALDE - MAVERICK - VAL VERDE-EDWARDS-REAL COUNTY MEDICAL SOCIETY.

Cantu, Lorenzo, Eagle Pass.
Gates, E. F., Eagle Pass.
*Hudson, S. B., Sabinal.
Koontz, L. A., Lacoste.
Long, M. A., Eagle Pass.
Meyer, H. J., Hondo.
Montemayor, B., Eagle Pass.
Myrick, C. R., Uvalde.
*Orr, B. F., Del Rio.
Ramsdell, M. A., Eagle Pass.
Robertson, P. F., Sanderson.
*Ross, H. B., Del Rio.
*Smith, W. H., (Sec.), Hondo.
Wood, E. U., Sabinal.
Wood, N. I., Uvalde.
York, D. A., (Pres.), Del Rio.

SIXTH OR CORPUS CHRISTI DISTRICT.

Dr. C. P. Yeager, Kingsville, Councilor.

BEE COUNTY MEDICAL SOCIETY.

Chilton, L. W., Goliad.
Griffin, L. L., Beeville.
*La Forge, Herschel, George West.
Lancaster, H. E., Beeville.
McNeill, Scott E., (Sec.), Beeville.
*Neeley, H., Beeville.
Turner, A. J., Beeville.
*Williamson, C. D., Three Rivers.

CAMERON COUNTY MEDICAL SOCIETY.

Brown, W. O., San Benito.
*Cash, C. M., San Benito.
Castillo, J. A., Brownsville.
Cole, B. L., Brownsville.
*Davidson, N. A., Harlingen.
Duggan, Malone, La Feria.
Hunter, John, Carmona.
Johnson, J. M., Rio Hondo.
Lawrence, O. V., Brownsville.
Letzerich, A. M., Harlingen.
Loew, Harry K., Brownsville.
Morris, E. T., San Benito.
Pollard, A. J., Harlingen.
Sizer, Elma M. A., Rio Hondo.
*Spivey, W. E., Brownsville.
Tribble, J. J., Brownsville.
Utley, R. E., (Sec.), Harlingen.
Watkins, J. M., Harlingen.
Works, B. M., Brownsville.
Works, B. O., Brownsville.

HIDALGO COUNTY MEDICAL SOCIETY.

Austin, A. J. J., Mission.
Burnett, T. R., Mission.
Caldwell, T. J., Mission.
Conrad, J. W., Pharr.
Doss, J. M., McAllen.
Davis, L. M., Donna.
Edgerton, G. W., Riogrande.
Edgerton, M. H., Riogrande.
Gaff, John V., Riogrande.
Garst, H., Corpus Christi.
*Harrison, J. G., McAllen.
Heidrick, D. L., Mercedes.
Jeffries, J. W., Mission.
Lockhart, J. P., Pharr.
Mahone, J. R. (Sec.), Pharr.
*Malone, W. T., Corsicana.
Martin, C. J., Alamo.
McCalip, E. L., Weslaco.
McGee, W. N., McAllen.
Miller, Jas. A., McAllen.
*Neal, W. S., Mercedes.
Osborn, F. E., (Pres.), McAllen.
Salter, J. M., Mission.
Schelaben, H. O., Edinburg.
Stephens, J. D., Weslaco.
*Webb, J. G., Mercedes.
Whigham, J. G., Donna.
*Whigham, W. E., Donna.
White, G. E., San Juan.
White, H. D., Monterrey, Mex.
Woodall, W. P., Hidalgo.

KLEBERG COUNTY MEDICAL SOCIETY.

*Allison, H., Kingsville.
Atkinson, N. W., Alice.
Bartlett, Glenn, (Sec.), Kingsville.
Campbell, N. W., (Pres.), Kingsville.
Guarjardo, Eusebio, Monterrey, Mex.
Robertson, J. J., Kingsville.
Russell, C. K., Falfurrias.
*Yeager, C. P., Kingsville.

NUECES COUNTY MEDICAL SOCIETY.

Arnold, E. O., Corpus Christi.
Barnard, W. C., Corpus Christi.
Blankmeyer, H. H., Aransas Pass.
Carruth, W. E., Corpus Christi.
Carter, L. D., Robstown.
Clark, D. H., Robstown.
*Davisson, A. W., Corpus Christi.
Giles, H. R., Corpus Christi.
Grant, J. H., Corpus Christi.
Halstead, F. R., Corpus Christi.
Harthill, Eleanor, Corpus Christi.
Heaney, H. G., Corpus Christi.
*Kaffie, Leo, Corpus Christi.
Nast, Jerome, Corpus Christi.
*Mathis, Edgar G., Corpus Christi.
North, A., Corpus Christi.
*Painter, F. U., Corpus Christi.
*Passmore, B. H., Corpus Christi.
Perkins, M. J., (Sec.), Alice.
Redmond, Henry, Corpus Christi.
Speer, A. H., (Pres.), Corpus Christi.
Thompson, J. M., Corpus Christi.
*Watson, C. O., Corpus Christi.
White, H. A., Corpus Christi.
Williams, M. L., Robstown.
Wills, W. E., Corpus Christi.
Wyche, George, Robstown.

SAN PATRICIO-ARKANSAS-REFUGIO COUNTY MEDICAL SOCIETY.

*Dodson, W. M., (Pres.), Woodsboro.
Glover, G. E., Sugarland.
Noble, Walter (Sec.), Aransas Pass.
*Worley, Preston, Sinton.

WEBB COUNTY MEDICAL SOCIETY.

Austin, H. M., Laredo.
Canolin, Geo. H., Laredo.
Canesco, F. R., Laredo.
Crawford, J. L., (Pres.), Laredo.
Cullinan, M., Laredo.
Davis, B. R., Laredo.
Graham, S. H., (Sec.), Laredo.
Halsell, John T., Laredo.
Hall, Horace C., Laredo.
Hamilton, H. J., Louisville, Ky.
King, Nat, Laredo.
Leal, M. T., Laredo.
Lightner, O. N., Laredo.
Lowry, Willis E., Laredo.
Naranjo, Jose S., Laredo.
Sauvignet, E. H., Laredo.
Sberman, J. W., Mirando City.
*Simpson, J. A., Laredo.
Stetson, Thomas, Hebbronville.
Wilcox, A. W., Laredo.

SEVENTH OR AUSTIN DISTRICT.

Dr. Joe Gilbert, Austin, Councilor.

BASTROP COUNTY MEDICAL SOCIETY.

*Bryson, J. G., Bastrop.
*Campbell, W. E., Elgin.
*Chapman, P., Smithville.
Combs, H. B., Bastrop.
*Harris, N. B., Red Rock.
*Jones, Geo. M., Smithville.
*Kraulik, F. J., Smithville.
Nofsinger, I. B., Elgin.
*Otken, C. H., (Pres.), Paige.
*Taylor, T. B., (Sec.), Bastrop.
Wood, W. E., Elgin.

CALDWELL COUNTY MEDICAL SOCIETY.

*Alexander, Keaton, McMahan.
Benbow, E. A., Luling.
*Boyd, F. M., Luling.
*Burks, Jas. M., (Sec.), Dale.
Coopwood, Thos. B., (Pres.), Lockbart.
Henry, H. B., Luling.
Morgan, Wm. M., Lockhart.
Nichols, Clay, Luling.
Nichols, Cranz, Maxwell.
O'Banion, Wm., Lockhart.
Pitts, M. W., Luling.
*Ross, A. A., Lockhart.
*Smith, Edgar, Lockhart.
*Williamson, D. B., Mendoza.

HAYS COUNTY MEDICAL SOCIETY.

*Edwards, L. L., (Pres.), San Marcos.
*Huff, Oscar, San Marcos.
Kinney, T., San Marcos.
*Lee, L. L., San Marcos.
*Shaver, P. J., San Marcos.
Van Ness, J. M., San Marcos.
*Williams, M. C., (Sec.), San Marcos.
*Williams, W. C., San Marcos.

LEE COUNTY MEDICAL SOCIETY.

Connor, A. C., Lexington.
*Hertel, H. G., Giddings.
*Johnson, J. M., (Pres.), Giddings.
Loose, T. C., Dime Box.
*York, W. E., (Sec.), Giddings.

LLANO COUNTY MEDICAL SOCIETY.

Fowler, W. Y., Llano.
Gray, G. L., Llano.
Selman, H. S., (Pres.), Llano.
Townsend, E. D., (Sec.), Llano.

SAN SABA COUNTY MEDICAL SOCIETY.

Beherns, C. L., Alice.
Bickham, W. S., San Saba.
Hays, P. G., Richland Springs.
*Nelson, A. D., Richland Springs.
Stone, Ira O., (Sec.), San Saba.

TRAVIS COUNTY MEDICAL SOCIETY.

*Bennett, T. J., Austin.
*Beverly, A. F., Austin.
*Black, C. C., Austin.
*Black, W. B., Austin.
Boerner, M. H., Austin.
*Bradfield, J. W., Austin.
*Brady, J. J., Austin.
*Brownlee, C. H., Austin.
*Carrington, H. D., Hutto.
*Clark, S. J., Austin.
*Cloud, R. E., Austin.
*Currie, R. F., Manchaca.
*Decherd, G. M., (Pres.), Austin.
*Eckhardt, J. C. A., Austin.
*Edens, L. E., Austin.
*Frank, S. Rosa, Austin.
*Gates, C. S., Austin.
*Gibson, J. W., Austin.
*Gilbert, G. H., Austin.
*Gilbert, Joe, Austin.
*Goddard, C. W., Austin.
*Graham, G. M., Austin.
*Granberry, H. B., Austin.
*Gregg, F. C., Austin.
*Greer, W. W., Austin.
*Gullette, J. F., Austin.
*Haigler, Sam, Austin.
*Hairston, T. C., Austin.
*Harper, W. A., Austin.
*Harper, H. W., Austin.
*Hilgartner, H. L., Austin.
*Holtzclaw, W. E., Buda.
*Howze, J. E., Austin.
Hudson, R. B., Pharr.
*Hudson, S. E., Austin.
*Jackson, N. R., Manor.
*Jones, B. F., Austin.
*Key, Sam, Austin.
*Kirk, L. H., Austin.
*Kreisle, M. F., Austin.
*Krueger, Ernest, Austin.
*Kuhn, August, Pflugerville.
*Lauderdale, Clay, Buda.
Lenz, R. P., Austin.
Lightfoot, W. D., Austin.
*Loving, J. M., Austin.
*Martin, Z. T., Austin.
*Matthews, C. A., Austin.
Maxwell, F. A., Austin.
*Maxwell, T. O., Austin.
*McCaleb, W. E., Austin.
*McKeown, H. S., Austin.
*McLaughlin, F. P., Austin.
*McLaughlin, J. W., Austin.
*Murray, R. V., Austin.
*Nichols, J. R., Austin.
*Pettway, T. R., Austin.
*Preston, John, Austin.
*Ramsdell, R. L., Austin.
*Richardson, Dalton, (Sec.), Austin.
*Roe, Mary Elizabeth, Austin.
*Schwab, E. H., Austin.
*Scott, H. A., Austin.
*Scott, Z. T., Austin.
*Shipp, R. W., Austin.
*Shuford, F. B., Austin.
*Smartt, M. P., Austin.
Smith, Lindsey, Austin.
*Springer, J. Gordon, Austin.
Steiner, R. E., Austin.
*Suehs, P. E., Austin.
*Taylor, Summerfield, Austin.
*Thomas, J. C., Austin.
*Watt, W. E., Austin.
Watt, W. Neal, Austin.
*Weller, C. Burford, Austin.
*Weller, Clarence, Austin.
Wickline, R. M., (dead), Austin.
Wilhite, J. T., Austin.
*Woolsey, S. A., Austin.
*Wooten, J. S., Austin.
Wooten, G. G., Austin.

WILLIAMSON COUNTY MEDICAL SOCIETY.

Atkinson, O. B., Florence.
*Bledsoe, R. E. B., Taylor.
*Collier, J. I., Taylor.
*Crawford, C. H., Jarrell.
Doak, Ed, Taylor.
*Flinn, J. F., Hutto.
*Foster, C. C., Granger.
*Gregg, D. B., Round Rock.
*Harrell, T. M., Corpus Christi.
*Hazelwood, W. R., Austin.
*Helms, W. L., Taylor.
*Hopkins, Y. F., (Pres.), Taylor.
*Howell, A., Burnet.
*Johns, J. J., Taylor.
*Kirkpatrick, B. A., Thrall.
*Kirkpatrick, S. B., Thrall.
Kuehne, Henry, Coupland.
Martin, S. S., Georgetown.
*Martin, J. R., Georgetown.
Martin, Walter, Georgetown.
Mikeska, E. F., Taylor.
Mussil, A. C., Granger.
*Osborne, C. F., Taylor.
*Pettus, W. G., (Sec.), Georgetown.
*Robinson, J. D., Florence.
*Ross, G. D., Liberty Hill.
*Schultz, W. M., Georgetown.
*Stevens, G. W., Leander.
*Stromberg, E. W., Taylor.
*Thomas, E. M., Georgetown.
*Vaughan, J. H., Taylor.
*Vaughan, T. D., Bertram.
*Wedemeyer, G. A., Taylor.
*Wedemeyer, W. C., Walburg.
Webber, W. G., Round Rock.

EIGHTH OR DEWITT DISTRICT.

Dr. O. S. McMullen, Victoria, Councilor.

COLORADO COUNTY MEDICAL SOCIETY.

Cook, Chas. G., Weimar.
Duve, C. E., (Sec.), Weimar.
Gordon, E. C., Columbus.
Harrison, R. Henry, (Pres.), Alleyton.
McLeary, Sam B., Columbus.
Potthast, A. H., Weimar.
Peters, Leo. J., Schulenberg.
Youens, W. G., Columbus.

DEWITT COUNTY MEDICAL SOCIETY.

Allen, Jr., George W., Yorktown.
Arnecke, Christopher A., Arneckville.
Beckmann, Albert, Yoakum.
Blackwell, Finley D., Hochheim.
Boothe, Sterling P., Cuero.
*Brown, Sr., Harry H., Yoakum.
*Brown, Jr., Harry H., Yoakum.
*Burns, John W., Cuero.
Burns, John G., Cuero.
Dobbs, James C., Cuero.
Duckworth, Guilford N., Cuero.
Eckhardt, Herman C., (Pres.), Yorktown.
Frobese, Joseph R., Cuero.
*Hale, Jesse W., Yoakum.
*Lackey, Joseph M., Cuero.
*Milner, Robert M., Yoakum.
Nowierski, Bronislaw J., (Sec.), Yorktown
Nowierski, Leon W., Yorktown.
Oquinn, C. Lafayette, Weesatche.
*Paine, Walter H., Cuero.
Reuss, Gillard T., Cuero.
*Sale, Walter W., Cuero.

FAYETTE COUNTY MEDICAL SOCIETY.

Dozier, J. V., Flatonia.
Guenther, F. J., La Grange.
Hoch, Chas. M., (Sec.), La Grange.
*Knolle, R. H., La Grange.
Marecic, F. J., Flatonia.
Moss, Robt. E., La Grange.
Young, F. E., (Pres.), West Point.
Zvesper, S. J., Schulenburg.

LAVACA COUNTY MEDICAL SOCIETY.

*Dufner, C. T., (Sec.), Hallettsville.
*Gray, J. D., Yoakum.
*Guenther, J. G., Moulton.
*Jaeggli, Sam, Moulton.
Kopecky, C. L., Yoakum.
*Kotzebue, A. M., Moulton.
*Marek, E. H., (Pres.), Yoakum.
*Renger, Paul, Hallettsville.
*Schulze, G., Shiner.
Shercliff, E. W., Yoakum.
*Shropshire, W., Yoakum.
*Wagner, Frank, Shiner.
*Weiss, J., Hallettsville.

MATAGORDA COUNTY MEDICAL SOCIETY.

Bomar, C. V., Gulf.
Bouldin, W. W., Bay City.
Loos, H. H., Bay City.
*Morton, A. S., (Pres.), Bay City.
Reed, J. W., Bay City.
Scott, E. E., Bay City.
Simons, J. E., (Sec.), Bay City.
Wagner, J. R., Palacios.

VICTORIA-CALHOUN-GOLIAD COUNTY MEDICAL SOCIETY.

DeTar, Webb T., Jr., Victoria.
DeTar, Webb T., Sr., Victoria.
*Gibson, A. D., Port Lavaca.
Hicks, James O., Victoria.
Hopkins, Joseph V., (Sec.), Victoria.
Kirkland, L. W., Goliad.
Lander, Jesse H., Victoria.
*Lander, R. G., Goliad.
*McMullen, Oscar S., Victoria.
Rush, John W., Bloomington.
Ryan, O. H., Seadrift.
Shields, Fred B., Victoria.
Smith, Joseph L., Victoria.
Stewart, Ollie R., Victoria.
*Ward, Rawley W., (Pres.), Victoria.

WHARTON-JACKSON COUNTY MEDICAL SOCIETY.

Andrews, J. M., Wharton.
*Davidson, G. L., Wharton.
Davidson, T. L., Wharton.
*Halamicek, J. A., El Campo.
Jones, C. L., East Bernard.
Lancaster, W. H., Ganado.
*Lincecum, A. L., Dallas.
Neal, T. M., Wharton.
Oldham, J. D., El Campo.
Redwine, D. P., El Campo.
*Reeves, H. V., (Sec.), El Campo.
Whitfield, J. E., Ganado.

NINTH OR SOUTHERN DISTRICT.

Dr. W. B. Thorning, Houston, Councilor.

AUSTIN COUNTY MEDICAL SOCIETY.

Brown, W. T., Wallis.
Hover, F. W., Sealy.
Knolle, B. E., Industry.
Knolle, Roger E., Industry.
Kroulik, John, Bellville.
Kubricht, Theo., Wallis.
Neely, J. A., Bellville.
*Roensch, H. E., (Sec.), Kenney.
*Steck, O. E., (Pres.), Bellville.
Trenckmann, O. A., Bellville.

BRAZORIA COUNTY MEDICAL SOCIETY.

Hampil, C. C., Brazoria.
Maxey, S. B., Angleton.
Shafer, C. L., Alvin.
Shaw, W. N., Freeport.
Stafford, Brooks, (Sec.), Angleton.
Weems, M. A., Columbia.
*Winn, F. R., Alvin.

BURLESON COUNTY MEDICAL SOCIETY.

Aiken, A., Chriesman.
Goodnight, T. L., Caldwell.
Kozar, J. H., Somerville.
Krueger, A. G., Caldwell.
McLean, B. O., (Sec.), Caldwell.
*Stork, E. W., Somerville.

FORT BEND COUNTY MEDICAL SOCIETY.

*Boyle, J. W., Jr., (Sec.), Richmond.
Deatherage, S. G., Sugarland.
Johnson, J. C., (Pres.), Richmond.
Marshall, W. E., Needville.
Weeks, J. W., Rosenberg.
Yates, John S., Rosenberg.

GALVESTON COUNTY MEDICAL SOCIETY.

Andronis, N. (Pres.), Galveston.
Azar, J. A., Galveston.
Brown, W. P., Galveston.
Cone, Robt. E. (Sec.), Galveston.
Cooke, H. P., Galveston.
*Cooke, W. R., Galveston.
*Crutchfield, E. D., Galveston.
Dimmitt, F. W., Galveston.
Fahring, G. H., Anahuac.
Fisher, W. C., Sr., Galveston.
*Fisher, W. C., Jr., Galveston.
Flautt, J. A., Galveston.
Flynn, J. G., Galveston.
*Graves, M. L., Galveston.
Harris, L. R., Galveston.
Haggard, C. H., Galveston.
*Harris, T. H., Galveston.
*Hartman, H. C., Galveston.

Hoecker, W. L., Galveston.
Huddleston, W. E., Galveston.
Jinkins, J. L., Galveston.
Jinkins, W. J., Galveston.
Jones, J. S., Galveston.
Keiller, Violet, Galveston.
*Keiller, Wm., Galveston.
Kleberg, Walter, Galveston.
*Knight, H. O., Galveston.
*Kopecky, J., Galveston.
Kruger, F., Galveston.
Lechenger, G. C., Galveston.
Lee, Geo. T., Galveston.
Morgan, Geo. L., Hankamer.
*Morris, Seth M., Galveston.
Patton, O., League City.
Pearce, M. G., Galveston.
Prujausky, N., Galveston.
*Randall, Edward, Jr., Galveston.
*Reading, Boyd, Galveston.
Rowley, Frances, Galveston.
*Sappington, H. O., Galveston.
Shearer, A. R., Mont Belvieu.
*Singleton, A. O., Galveston.
Spiller, W. F., Galveston.
*Starley, W. F., Galveston.
Stephens, E. M. F., Galveston.
*Stone, C. T., Galveston.
Tucker, J. P., Galveston.
*Wall, D, P., Galveston.

GRIMES COUNTY MEDICAL SOCIETY.

Emory, S. J., (Pres.), Navasota.
Greenwood, W. W., Navasota.
Harris, E. A., (Sec.), Navasota.
*Harris, G. C., Courtney.
Harris, R. D., Navasota.
Parker, M. E., Anderson.
Peeples, D. L., Navasota.
Sanders, G. C., Richards.
Wilson, W. T., Navasota.

HARRIS COUNTY MEDICAL SOCIETY.

*Agnew, J. H., Houston.
Alexander, J. C., Houston.
Allen, N. N., Houston.
Applebe, E. W., Houston.
*Archer, P. M., Houston.
Armstrong, E. M., Houston.
*Arnold, E. M., Houston.
Aves, C. M., Houston.
Aydam, C. W., Houston.
*Barnes, F. L., Houston.
Bartlett, H. L., Houston.
Bell, Wm. E., Houston.
Bennett, W. H., Humble.
Bertner, E. W., Houston.
*Bost, J. R., Houston.
Bourland, F. M., Houston.
*Braden, A. H., Houston.
Bradley, R. L., Houston.
*Brenner, M. L., Houston.
*Brokaw, Chas., Houston.
Bruhl, C. E., Houston.
Brumby, W. M., Houston.
Bryan, W. G., Houston.
*Calaway, F. O., Houston.
Campbell, W. D., Goose Creek.
Caplovitz, H., Liberty.
Clarke, J. E., Jr., Houston.
Clarke, W. A., Houston.
*Cody, C. C., Houston.
Collette, Allen, Houston.
Compere, T. H., Houston.
*Cooke, E. F., Houston.
Coop, B. F., Houston.
*Coulter, W. W., Houston.
Cox, R. L., Houston.
Creviston, C. D., Houston.
Cronin, P. H., Houston.
Cruse, P. R., Houston.
*Daily, R. K., Houston.
*Daily, L., Houston.
Daniels, J. E., Houston.
*David, S. D., Houston.
Dawes, R., Houston.
Dawson, J. W., Houston.
*Denman, P. R., Houston.
DeWalt, D. C., Houston.
Dickson, T. A., Houston.
Dodge, W. E., New York City.
*Dubose, J. B., Humble.
Duckett, J. D., Houston.
*Dudley, N. L., Goose Creek.
Dunnam, T. E., Houston.
Durham, M. E., Houston.
Eckhart, W., Houston.
Eidman, F. G., Houston.
Elliott, M. L., Houston.
Ellis, B. V., Houston.
Ellis, J. C., Houston.
Ellis, L. M., Houston.
Englehart, H. A., Houston.
*Erhardt, Wm., Westfield.
Feagin, H. C., Houston.
*Flickwir, A. H. (Pres.), Houston
*Florence, J. H., Houston.
Foote, S. A., Houston.
*Foster, J. H., Houston.
Foster, J. B., Houston.
Freundlich, Thos. W., Houston.
Gamble, J. F., Houston.
Gantt, M. A., Houston.
Gerson, G. R., Houston.
Gilliam, Hiram, Houston.
Glover, F. S., Houston.
*Goar, E. L., Houston.
Goetz, A. V., Houston.
Gooch, F. B., Houston.
Graves, J. H., Houston.
Gray, D. F., Houston.
Gray, E. N., Houston.
*Green, C. C., Houston.
Greenwood, Jas. W., Houston.
*Greer, Alvis, Houston.
*Greer, David, Houston.
Grimes, G. D., Houston.
Griswold, C. M., Houston.
Hackfield, A. J., Houston.
Haden, H. C., Houston.
Hamilton, Gavin, Houston.
Handley, L. L., Houston.
Hanna, L. C., Houston.
Hargrove, R. M., Houston.
*Harris, C. P., Houston.
Harris, J. E., Houston.
Harris, T. F., Houston.
Hayes, Herbert T., Houston.
*Heard, Allen G., Houston.
Heard, E. L., Houston.
*Hill, J. A., Houston.
Hill, Thos. G., Houston.
Hill, Jasper H., Houston.
Hodges, J. E., Houston.
Hodde, L. F., Houston.
Hoeflich, C. W., Houston.
*Holley, A. S., Houston.
*Howard, A. P., Houston.
Israel, N. E., Houston.
Israel, Sidney, Houston.
James, A. J., Houston.
Johnson H. Herman, Houston.
*Johnston, R. A., Houston.
*Johnson, J. E., Fairfield.
Jones, J. T., Houston.
Kendall, D. H., Houston.
Kenner, E. B., Houston.
*King, F. B., Houston.
Kirkham, H. L. D., Houston.
Knox, R. W., Houston.
Krause, A., Houston.
Kuebler, L. W., Houston.
Kyle, J. Allen, Houston.
Lancaster, E. H., Houston.
Lancaster, F. H., Houston.
*Lapat, Wm., Houston.
Larendon, G. W., Houston.
Lay, J. R., Houston.
Legnard, J. B., Houston.
Levy, M. D., Houston.
Ligon, J. G., Houston.
Lister, S. M., Houston.
Logue, L. J., Houston.
Looper, S. A., Houston.
Ludeau, J. E., Houston.
Lummis, F. R., Houston.
Maresh, H. R., Houston.
Maresh, R. E., Houston.
Mathews, J. F., Houston.
*McDeed, W. G., Houston.
*McHenry, R. K., Houston.
McKee, J. W., Houston.
McMeans, R. H., Houston.
McMurray, Allen, Houston.
Meyer, G. H., Houston.
*Michael, J. C., Houston.
Miller, A. L., Houston.
Miller, K. N., Houston.
Mitchner, J. M., Memphis, Tenn.
Moers, R. H., Houston.
Moers, Ernest A., Houston.
*Moore, Jno. T., Houston.
Moore, S. H., Houston.
Morrison, H. K., Houston.
Motheral, J. D., Houston.
Myers, C. D., Houston.
Mynatt, A. J., Houston.
*Norsworthy, O. L., Houston.
Noark, Henry, Fairbanks.
*O'Banion, M. L., Houston.
Oliver, J. T., Houston.
Orman, McDonald, Houston.
*Page, J. H., Houston.
Park, J. H., Jr., Houston.
Parker, G. D., Houston.
Parkhill, F. G., Houston.
Patterson, C. U., Houston.
Pawelek, I. L., Houston.
Pawelek, L. G., Houston.
Priester, W. G., Houston.
Pritchett, I. E., Houston.
Pulliam, S. T., Houston.
Purdie, R. M., Houston.
Ralston, Wallace, Houston.
*Ramsey, W. E., Houston.
Raney, L. W., Houston.
Read, H. K., Houston.
Red, S. C., Houston.
*Robbins, E. F., Houston.
Robinson, G. J., Houston.
*Robison, J. M., Houston.
*Ross, W. H., Houston.
Sandlin, J. W., Humble.
Sauerman, W. O., Houston.
Scardino, P. H., Houston.
Schilling, J. G., Houston.
Schoepfer, R. F., Houston.
Schnell, J. H., Houston.
Scott, J. W., Houston.
Scott, R. T., Houston.
*Short, J. L., Houston.
Sinclair, T. A., Houston.
*Slataper, F. J. (Sec.), Houston.
Sloan, P. A., Houston.
Smith, B. F., Houston.
Smith, C. T., Houston.
Smith, P. L., Houston.
Sparks, J. E., Houston.
Spiller, J. B., Houston.
Spivak, L. J., Houston.
*Spurlock, G. H., Houston.
*Stalsby, Jas. D., Crosby.
Stewart, J. M., Katy.
Stokes, M. B., Houston.
Strozier, Wm., Houston.
Tally, A. T., Houston.
Taylor, J. L., Houston.
Taylor, M. J., Houston.
Thoma, Earl, Houston.
Thorn, J. W., Houston.
Thorning, W. B., Houston.
*Toland, Wm. A., Houston.
Trible, J. M., Houston.
Turner, B. W., Houston.
*Turner, J. H., Houston.
Tusa, T. S., Houston.
Wallis, Marshall, Houston.
Waples, F. A., Houston.
Westmoreland, J. P., Houston.
White, A. W., Houston.
White, A. E., Houston.
*White, J. L., Houston.
Wier, W. M., Houston.
Williams, W. O., Houston.
Wilson, R. D., Houston.
*Wooley, T. O., Houston.
*Wood, M. A., Houston.
Wooters, John, Houston.
Wright, E. A., Houston.
Wright, Ernest, Houston.
Young, C. B., Houston.

MADISON COUNTY MEDICAL SOCIETY.

Burney, J. E., North Zulch.
*Day, Geo. P. (Sec.), Madisonville.
McKay, Jas. A., Madisonville.
*Morris, Jas. E. (Pres.), Madisonville.
*Zulch, J., North Zulch.

MONTGOMERY COUNTY MEDICAL SOCIETY.

*Boyd, J. M., Pasadena.
Bybee, J. A., Conroe.
*Covington, C. M., Montgomery.
Hooper, W. N., Conroe.
Ingrum, W. P. (Sec.), Conroe.
*Tinsley, O. M. (Pres.), Conroe.
Ware, J. M., Magnolia.
Falvey, T. S., Conroe.
Miller, S. A., Dallas.
Morris, W. D., Conroe.
Tate, R. A., Tamina.

POLK COUNTY MEDICAL SOCIETY.

Bergman, H., Livingston.
Bevil, Jack, Hull.
Bright, R. L., Hampton.
Clements, E. B., Cleveland.
Cochran, G. E., Gladstell.
Hendley, H. F., Hortense.
Hubert, J. M., Cleveland.
Love, R. B., Livingston.
Marsh, B. C., Livingston.
McCardell, W. K., Livingston.
Pullen, W. G., Corrigan.
Williams, Montgomery, (Pres.), Onalaska.

WALKER COUNTY MEDICAL SOCIETY.

Angier, E. L., Huntsville.
Autrey, S. L., Trinity.
Bush, L. H., Huntsville.
Calloway, H. A., Oakhurst.
Curtis, M. E., Huntsville.
Fowler, Wm. E., Huntsville.
Gustine, N. W., Shepherd.
*Martin, J. Ross, Huntsville.
*Robertson, Harry S. (Pres.), Elmina.
Thomason, J. W. (Sec.), Huntsville.

WALLER COUNTY MEDICAL SOCIETY.

*Berry, H. A., Waller.
Harris, Robert L. (Pres.), Hempstead.
*Jones, Malcolm A. (Sec.), Hempstead.

WASHINGTON COUNTY MEDICAL SOCIETY.

*Becker, A. E. (Sec.), Brenham.
Campbell, Wm. R., Chappel Hill.
*Hasskarl, R. A., Brenham.
Hasskarl, W. F., Brenham.
Hodde, Fred H., Burton.
Knolle, E. R., Brenham.
*Knolle, K. C. (Pres.), Brenham.
Knolle, W. A., Brenham.
*Kusch, Luther, Gay Hill.
Lenert, R. H., Brenham.
*Moore, O. S., Burton.
Nicholson, R. E., Brenham.
Schoenvogel, O. F., Brenham.
Williamson, Jno. R., Brenham.

TENTH OR SOUTHEASTERN DISTRICT.

Dr. D. S. Wier, Beaumont, Councilor.

ANGELINA COUNTY MEDICAL SOCIETY.

Alexander, C. E. (Sec.), Lufkin.
Beazley, W. H., Honey Island.
Bledsoe, R. B., Lufkin.
Canon, R. T., Lufkin.
Carr, K. K., Devers.
Childers, D. M. (Pres.), Lufkin.
Clark, E. T., Kelty's.
Clements, Peyton C., Manning.
Dale, J. R., Diboll.
Denman, L. H., Lufkin.
Dillon, O. M., Lufkin.
Dunn, W. W., Lufkin.
Hawkins, J. W., Lufkin.
Mathews, R. L., Lufkin.
Stewart, C. B., Huntington.
*Sweatland, A. E., Lufkin.
*Taylor, T. A., Lufkin.
Tinkle, L. T., Lufkin.
Treadwell, W. B., Lufkin.
Van Nuys, J. C., Lufkin.
Wilson, H. M., Dunkin.

JASPER-NEWTON COUNTY MEDICAL SOCIETY.

Alexander, C. B., Bessmay.
Blow, F. T., Buna.
Hardy, Hugh, Jasper.
McCreight, W. F. (Sec.), Kirbyville.
Ogden, T. R. (Pres.), Blox.
Ogden, U. B., Kirbyville.
Powell, C. N., Deweyville.
Richardson, A. J., Jasper.

JEFFERSON COUNTY MEDICAL SOCIETY.

Alexander, H. E., Beaumont.
Autrey, A. R. (Sec.), Port Arthur.
Barclay, A. P., Wharton.
Barr, H. A., Beaumont.
Bevil, H. G., Silsbee.
Bevil, J. R., Beaumont.
Bledsoe, J. A., Port Arthur.
Bledsoe, M. F., Port Arthur.
Blevins, J. D., Beaumont.
Brandeau, W. H., Beaumont.
Broussard, J. A., Port Arthur.
*Brown, W. D., Beaumont.
Chambers, B. F., Port Arthur.
Chiasson, J. L., Port Neches.
Crumpler, W. E., Port Arthur.
Cruse, J. B., Beaumont.
Davison, B. H., Port Arthur.
Deason, G. A., Port Arthur.
Dubose, A. J., Village Mills.
Fears, T. A., Port Arthur.
Ferguson, E. C., Beaumont.
Fulbright, C. W., Port Arthur.
Garth, J. W., Beaumont.
Gibson, J. A., Port Arthur.
Gober, J. M., Beaumont.
Goldstein, Louis, Beaumont.
Grimes, Jasper, Beaumont.
Grimes, Ivison, Liberty.
*Haizlip, J. H., Nederland.
Harlan, H. D., Beaumont.
Hart, F. B., Sour Lake.
*Heare, L. C., Port Arthur.
Hodges, O. S., Beaumont.
*Holland, B. P., Beaumont.
Jackson, J. M., Port Arthur.
Kimmins, R. L., Beaumont.
Ledbetter, L. H., Beaumont.
Mabry, F. D., Port Arthur.
Mann, J. S., New Willard.
Mann, D. A., Beaumont.
Martin, F. S., Beaumont.
Martin, J. D., Beaumont.
Matlock, E. W., Port Arthur.
McAlister, F. E., Wiergate.
*McMickin, D. (Pres.), Beaumont.
Middleton, W. C., Beaumont.
*Mills, E. D., Beaumont.
Orrill, R. R., Port Arthur.
Pedigo, H. B., Beaumont.
Pollock, A. S., Port Arthur.
Powell, L. C., Beaumont.
Reagan, J. H., Beaumont.
Record, Joe, Beaumont.
Reed, G. H., Beaumont.
Reed, Pat, Port Arthur.
Richardson, Bruce, Beaumont.
Sappington, T. B., Port Arthur.
Serrafino, L. C., Beaumont.
Sherrill, E. A., Beaumont.
Smith, J. G., Port Arthur.
Smith, Wm. A., Beaumont.
Sublett, C. M., Beaumont.
Sutton, F. W., Beaumont.
Swearingen, M., Port Arthur.
*Swonger, J. B., Beaumont.
Tadlock, J. T., Dayton.
Tatum, W. E., Beaumont.
Thompson, J. D., Port Arthur.
Thompson, W. F., Beaumont.
Vaughan, B. H., Port Arthur.
Vaughan, E. W., Port Arthur.
Wall, S. D., Port Arthur.
*Wier, D. S., Beaumont.
White, C. M., Beaumont.
White, J. M., Port Arthur.
Winter, W. S., Sr., Port Arthur.
Wood, B. W., Port Arthur.
Young, I. T., Port Arthur.
Young, T. W., Port Arthur.

NACOGDOCHES COUNTY MEDICAL SOCIETY.

Barham, Geo. S., Nacogdoches.
Blackwell, T. J., Nacogdoches.
Campbell, Geo. P., Nacogdoches.
Castleberry, W. T., Nacogdoches.
Harrison, B. M., Appleby.
Howard, W. C., Nacogdoches.
Nelson, A. A. (Pres.), Nacogdoches.
Payne, C. M., Nacogdoches.
Pennington, T. J., Nacogdoches.
P'Pool, M. W. (Sec.), Nacogdoches.
Tucker, F. R., Nacogdoches.
Smith, W. I. M., Nacogdoches.

ORANGE COUNTY MEDICAL SOCIETY.

*Barr, R. E. (Pres.), Orange.
*Coyle, W. P., Orange.
Dameron, J. H., Orange.
Lawson, F. W. (Sec.), Orange.
Mitchell, A. L., Orange.
Pearce, A. G., Orange.
Phillips, C. E., Orange.
Thompson, L. O., Orange.
Wilhite, G. W., Orange.

SABINE COUNTY MEDICAL SOCIETY.

Arnold, Wm. T. (Pres.), Hemphill.
Cooper, J. D., Blox.
Cousins, Robert D. (Sec.), Pineland.
Mattox, Jas. H. (Hemphill).
Morgan, Thos. B., Bronson.
Smith, C. Frank, Hemphill.
Smith, E. G., Hemphill.

SHELBY COUNTY MEDICAL SOCIETY.

Duke, Andrews W. (Pres.), Center.
*Hurst, Thomas L., Center.
Warren, Walter M., Center.
Warren, William H. (Sec.), Center.
Windham, John H., Shelbyville.
Windham, William C., Center.

ELEVENTH OR EASTERN DISTRICT.

Dr. R. H. McLeod, Palestine, Councilor.

ANDERSON COUNTY MEDICAL SOCIETY.

Austin, M. L., Montalba.
*Cahall, W. L., Palestine.
*Card, C. F., Palestine.
Carlisle, J. T., Palestine.
Davis, W. E., Elkhart.
Dunn, R. M., Palestine.
Funderburk, W. O., Elkhart.
*Hathcock, A. L., Palestine.
Howard, G. R., Austin.
*Hunter, R. Q., Palestine.
Link, E. W. (Pres.), Palestine.
*Link, H. R., Palestine.
McLeod, R. H. (Sec.), Palestine.
*Parsons, E. B., Palestine.
Paxton, J. H., Elkhart.
*Rose, E. L., Port Arthur.
Scarbrough, E. H., Brusby Creek.
*Small, G. D., Palestine.
Speegle, A. A., Palestine.

CHEROKEE COUNTY MEDICAL SOCIETY.

Barnett, G. W., Gallatin.
Barron, W. P., New York City, N. Y.
*Bone, J. N., Jacksonville.
*Castner, Charles W., San Antonio.
*Cobble, Thos. H. (Sec.), Rusk.
Fuller, F. A., Jacksonville.
Greenwood, J. T., Ponta.
*Johnson, J. F., Rusk.
Jones, Ed B., Dialville.
Lockhart, J. J., Rusk.
McClure, M. E., Alto.
*McDonald, W. A., Alto.
*McDougle, John B., Jacksonville.
Moseley, E. M., Rusk.
Priest, R. C. (Pres.), Rusk.
Sorey, W. H., Jacksonville.
*Travis, J. M., Jacksonville.
Travis, R. T., Jacksonville.

FREESTONE COUNTY MEDICAL SOCIETY.

Bond, J. W. (Pres.), Donie.
Davidson, J. D. (Sec.), Teague.
Harrison, W. P., Teague.
Headlee, E. V., Teague.
Lowry, D. L., Teague.
*McFadin, W., Fairfield.
Peyton, F. P., Teague.
Whiteside, W. A., Kirvin.

HENDERSON COUNTY MEDICAL SOCIETY.

*Cockerell, L. L., Eustace.
*Easterling, A. H. (Sec.), Athens.
*Fowler, J. A., Malakoff.
Hodge, J. C., Athens.
Hodge, R. H., Athens.
Horton, A. C., Murchison.
La Rue, R. L. (Pres.), Eustace.
Moon, G. F., Chandler.
Moss, M. M., Brownsboro.
Owen, D. B., Malakoff.
Price, D., Athens.
Pulley, L. W., Trinidad.
*Webster, J. K., Athens.

HOUSTON COUNTY MEDICAL SOCIETY.

Deal, J. B., Crockett.
Dillard, R. E. (Sec.), Crockett.
Evans, C. W., Crockett.
Latham, W. W., Crockett.
Lipscomb, Wm. C., Crockett.
Sherman, T. M. (Pres.), Kennard.
Stokes, E. B., Crockett.
Thomas, M. A., Crockett.
Wooters, J. S., Crockett.

LEON COUNTY MEDICAL SOCIETY.

Bing, R. E., Oakwood.
*Brown, S. M., Keechi.
*Carrington, D. C. (Sec.), Marquez.
*Carter, Coleman, Jr., Oakwood.
Cole, W. A., Normangee.
Hester, Nell M., Buffalo.
Murdock, E. P., Oakwood.
Powell, E. P., Centerville.
Rogers, Joe, Normangee.
Seale, W. H. (Pres.), Marquez.

RUSK COUNTY MEDICAL SOCIETY.

Birdwell, J. A., Overton.
*Dawson, C. A. (Sec.), Minden.

Motley, John G., Henderson.
Ross, Griff, Mt. Enterprise.
Ross, J. E., Henderson.
Sadler, J. G., Henderson.
Shaw, C. A., Rusk.
Shaw, R. F., Henderson.
*Watkins, J. E. (Pres.), Henderson.
White, W. P., Henderson.

SMITH COUNTY MEDICAL SOCIETY.

Arthur, B. L., Lindale.
Bell, G. G., Tyler.
Bryant, B. T., Tyler.
Bundy, D. T., Tyler.
Calloway, A. N., Tyler.
Clawater, E. W., Tyler.
Gibson, J. W., Lindale.
Griffith, J. M. (Sec.), Tyler.
Hudson, C. L., Tyler.
*Johnson, W. J., Austin.
Livingston, J. J., Tyler.
Pabst, Oscar C., Tyler.
Page, Roy L. (Pres.), Tyler.
Pope, John Hunter, Tyler.
Rice, E. D., Tyler.
Smith, L. E., Tyler.
*Vaughn, E. H., Tyler.
Wisdom, H. H., Tyler.
Woldert, Albert, Tyler.

TRINITY COUNTY MEDICAL SOCIETY.

Barnes, Geo. R. (Pres.), Trinity.
Bradley, C. H. (Sec.), Groveton.
Briscoe, S. M., Trinity.
Evans, C. W., Alcedo.
Magee, W. J., Groveton.
Murphy, C. S., Groveton.

TWELFTH OR CENTRAL DISTRICT.

Dr. N. D. Buie, Marlin, Councilor.

BELL COUNTY MEDICAL SOCIETY.

*Ballard, A. E., Belton.
Barton, W. H., Temple.
Batte, Tom, Belton.
Blair, C. M., Waxahachie.
*Boren, Edgar R. (Sec.), Belton.
*Brindley, G. V., Temple.
Burns, E. J., Belton.
*Chapman, M. L., Temple.
*Crabb, M. H., Temple.
Ellis, I. D., Troy.
*Etter, W. F., Rogers.
*Frazier, J. M., Belton.
*Gambrell, Wm., Belton.
Gober, O. F., Temple.
Hamblen, C. H., Holland.
Harlan, W. J., Bartlett.
*Hudson, Taylor, Belton.
*Johnson, J. B., Galveston.
*Jordan, D. W., Temple.
*Knight, Lee, Temple.
*Longmire, V. M., Temple.
Lynch, C. P., Pendleton.
*Maloy, E. D., Temple.
Marsh, J. E., College Station.
*McCelvey, J. S., Temple.
*McDavitt, Bertha, Temple.
*McElhannon, M. P., Belton.
McLean, W. J., Temple.
*McReynolds, G. S., Temple.
*Moon, A. E., Temple.
*Nichols, C. V., Rogers.
*Noble, R. W., Temple.
*Pittman, J. W., Belton.
*Pollok, L. W., Temple.
*Potter, Claudia, Temple.
Power, C. L., Temple.
*Pritchett, Belvin, Temple.
*Robinson, J. E., Temple.
Schwald, N. A., Killeen.
*Scott, A. C., Jr., Temple.
*Scott, A. C., Sr., Temple.
*Sherwood, M. W., Temple.
Simpson, C. M., Temple.
*Stoeltje, E. C., Temple.
Talley, L. R., Temple.
Watts, S. A., Pendleton.
*Wilson, R. T., Temple.
Wood, D. L. (Pres.), Killeen.
*Woodson, J. M., Temple.

BOSQUE COUNTY MEDICAL SOCIETY.

Alexander, Elmo, Meridian.
Alexander, J. H., Meridian.
Blankenship, W. W., Mosheim.
Burnett, Jas. H. (Pres.), Kopperl.
Cate, C. C. (Sec.), Morgan.
Crothers, V. M., Meridian.
*Jarrett, J. C., Valley Mills.
McNeil, W. T., Valley Mills.
*Murray, J. A., Walnut Springs.
Pike, A. N., Iredell.
Tubb, C. L., Valley Mills.

BRAZOS-ROBERTSON COUNTY MEDICAL SOCIETY.

Alexander, S. J., Hearne.
Black, Jno. W. (Pres.), Bryan.
*Connor, C. J., Franklin.
Crockett, Jno. A., Bryan.
*Cummings, H. W., Hearne.
Curry, T. G., Franklin.
Ehlinger, R. B. (Sec.), Bryan.
Gilstrap, W. P., Wheelock.
Gilson, F. J., Calvert.
Goodwin, J. N., Bryan.
*Holman, J. C., Franklin.
Lee, Geo. F., Bryan.
Oliver, W. H., Bryan.
Parker, W. S., Calvert.
Searcy, C. A., Bryan.
Taylor, W. C., Calvert.
Wilkerson, L. O., Bryan.

COMANCHE COUNTY MEDICAL SOCIETY.

Chilton, P. H., Best.
*Gray, A. J. (Pres.), Comanche.
*Inzer, H. H., DeLeon.
Ory, C. W. (Sec.), Comanche.
Plemmons, J. T., DeLeon.
Thomas, L. B., Comanche.
Vineyard, A. E., Comanche.
*Westbrook, W. J., Sipe Springs.

CORYELL COUNTY MEDICAL SOCIETY.

Baker, E. B. (Pres.), Gatesville.
Bailey, Ralph, Gatesville.
Bellamy, C. L., Turnersville.
Brown, R. J., Gatesville.
*Coston, G. M., Ireland.
Hall, T. M. (Sec.), Gatesville.
Hamilton, J. H., Jonesboro.
Haynes, H. M., Gatesville.
*Homan, D. C., Oglesby.
Jordan, D. M., Oglesby.
King, F. B., Pearl.
Lowrey, M. W., Gatesville.
Newland, W. B., Gatesville.
Raby, R. L., Gatesville.

ERATH COUNTY MEDICAL SOCIETY.

*Barnett, H. N., Austin.
*Bryan, T. F., Dublin.
Cragwall, A. O. (Sec.), Stephenville.
*Gain, O. O., Dublin.
Gordon, J. B., Stephenville.
Gordon, T. M., Stephenville.
Keith, Uel, Thurber.
Lankford, A. E., Stephenville.
Mulloy, Joe, Stephenville.
Mulloy, N. T., Lingleville.
Naylor, S. D. (Pres.), Stephenville.
Price, Enoch C., Dublin.
Sessums, J. R., Dublin.
Shepard, O. A., Morgan Mill.

FALLS COUNTY MEDICAL SOCIETY.

*Barnett, J. H. (Pres.), Marlin.
Beck, Emma, Marlin.
*Buie, N. D., Marlin.
Bundy, O. T., Marlin.
Curry, H. P., Reagan.
Davison, M. A., Marlin.
*Garrett, H. S., Marlin.
*Glass, Tom, Marlin.
*Green, J. E., Waco.
Hayes, M. A., Lott.
*Hornbeck, A. C., Marlin.
*Hutchings, E. P., Marlin.
*Martin, J. E., Eddy.
*Mitchell, J. H., Kosse.
*Munger, S. S., Marlin.
*Rice, S. P., Marlin.
*Smith, Howard (Sec.), Marlin.
*Streit, A. J., Marlin.
Torbett, O. L. A., Marlin.
*Torbett, J. W., Marlin.
White, J. B., Marlin.
Whiteside, R. B., Lott.
York, F. A., Marlin.

HAMILTON COUNTY MEDICAL SOCIETY.

Applewhite, H. L., Carlton.
Beach, D. B., Hamilton.
Bolding, W. T., Hamilton.
Chandler, C. E., Hamilton.
Cleveland, C. C., Hamilton.
Currie, J. D. (Sec.), Hico.
*Durham, C. E., Austin.
*Hall, C. M. (Pres.), Hico.
Hartman, V. A., Hamilton.
Snodgrass, W. A., Hamilton.
Williamson, A. T., Indian Gap.
Yarbrough, E. E., Carlton.
*Young, S. W., Hico.

HILL COUNTY MEDICAL SOCIETY.

Arledge, W. I., Hillsboro.
Armstrong, F. G., Hubbard.
Barnes, Livingston, Hubbard.
*Boyd, J. E., Hillsboro.
Buie, John, Hillsboro.
Faulkner, C. F., Whitney.
Fuller, H. H., Hillsboro.
Garrett, Chas. A. (Sec.), Hillsboro.
Jenkins, G. H., Bynum.
Lowrey, W. W., Hillsboro.
*Mahaffey, H. A., Hillsboro.
*McDonald, J. Frank, Hillsboro.
*McKown, J. S., Osceola.
McPherson, A. B., Lovelace.
Miller, J. W., Hillsboro.
Montgomery, G. L., West.
Olive, Roy, Brandon.
Robert, J. J., Hillsboro.
Robison, J. J., Itasca.
*Sammons, H. P., Hubbard.
Shoemaker, L. F., Vaughan.
Sims, F. D., Abbott.
*Smith, Ben C. (Pres.), Hillsboro.
*Smith, E. G., Malone.
Spalding, J. W., Hillsboro.
*Speer, J. A., Itasca.
Stephenson, H. H., Frost.
Treat, W. F., Whitney.
Vaughan, Edwin, Hillsboro.
*Weir, J. P., Covington.
Woolsey, H. U., Penelope.
Woolsey, W. J., Penelope.

HOOD-SOMERVELL COUNTY MEDICAL SOCIETY.

*Dabney, T. H. (Pres.), Granbury.
Gandy, J. H. (Sec.), Lipan.
Jarrett, A. R., Granbury.
Lancaster, G. N., Granbury.
Menefee, E. L., Granbury.

JOHNSON COUNTY MEDICAL SOCIETY.

Anderson, C. C., Venus.
*Ball, W. P. (Pres.), Cleburne.
Dennis, M., Cleburne.
Edgar, C. L., Cleburne.
Ezell, C. V., Cleburne.
Ezell, U. D., Cleburne.
*Harris, R. L., Cleburne.
Honea, T. C., Cleburne.
*Knox, M. T., Cleburne.
*Osborn, J. D., Cleburne.
Pearson, J. I., Joshua.
*Schultz, C. A., Alvarado.
*Shytles, W. M., Rusk.
Smith, L. T., Rio Vista.
Turner, B. H., Cleburne.
*Washburn, W. R. (Sec.), Cleburne.
Yater, Lee, Cleburne.

LIMESTONE COUNTY MEDICAL SOCIETY.

*Baker, J. C., Kosse.
*Barnett, J. B., Thornton.
*Brown, M. M., Mexia.
Cox, Henry, Groesbeck.
Cox, J. W. (Pres.), Groesbeck.
Dorsett, D. H., Mexia.
Goolsby, Z. T., Mexia.
*Hamm, E. F. (Sec.), Mexia.
Holton, B. F., Purdon.
Jackson, R. B., Mexia.
Leach, R. N., Thornton, R. 4.
Maxwell, H. C., Mexia.
McKenzie, C. P., Mexia.
Oates, T. F., Mexia.

MILAM COUNTY MEDICAL SOCIETY.

Anderson, R. B., Thorndale.
*Barkley, T. S., Rockdale.
*Coulter, H. T., Rockdale.
*Crump, T. E., Rockdale.
*Denson, J. L., Cameron.
Denson, T. J., Cameron.
*Epperson, A. S., Cameron.
Fountain, W. J., Jones Prairie.
*Hubert, J. S., Calvert.
*Lawrence, E. L., Thorndale.
Lyon, W. H., Cameron.
Monroe, D. E., Cameron.
*Newton, W. R. (Pres.), Cameron.
*Page, J. A. T., Winchester.

Rischar, Edward, Cameron.
*Sapp, M. C., Cameron.
*Sessions, I. P., Rockdale.
*Taylor, G. B. (Sec.), Cameron.
Terry, Wm., Thorndale.
Wallis, R. W., Rockdale.
*Young, J. Z., Buckholts.

McLENNAN COUNTY MEDICAL SOCIETY.

*Alexander, Boyd, Waco.
Alexander, R. B., Waco.
Alexander, R. J., Waco.
Aynesworth, H. T., Waco.
*Aynesworth, K. H., Waco.
Baird, T. H., Otto.
Baker, M. D., Waco.
Bell, R. B., Waco.
Bidelspach, W. C., Waco.
*Bowman, N. H., Waco.
Bradford, J. C., Mart.
Brannon, E. C., Waco.
Brooks, C. H., Waco.
Brown, J. B., McGregor.
Byron, D. T., Waco.
Cannon, D. S., Mart.
Christoffer, O. T., Waco.
Clark, Ernest, Waco.
Cole, W. F., Waco.
*Colgin, I. E., Waco.
*Colgin, M. W., Waco.
Collins, C. E., Waco.
Collom, C. C., Mart.
Compton, W. J., Crawford.
*Connally, H. F., Waco.
Connally, W. P., McGregor.
Cook, J. E., Mart.
Corbin, M. E., Post.
Craven, A. R., Waco.
*Crosthwait, W. L., Waco.
*Curran, W. F., Waco.
Davis, C. W., Waco.
*Dudgeon, H. R., Waco.
*Earle, H., Waco.
*Eastland, D. L., Waco.
Elliott, O. C., Elm Mott.
*Etter, Roscoe, Waco.
*Foscue, G. B., Waco.
Foster, J. D., Riesel.
*Friedsam, S. A., Waco.
Germany, H. J., Waco.
Gidney, J. W., West.
Gillam, J. R., Mart.
*Goodall, C. L., Waco.
Gordon, Robt. A., Lorena.
Hale, J. W., Waco.
Hoehn, F. W., Waco.
Hoke, H. E., Waco.
Harrington, J. T., Waco.
*Jenkins, I. W. (Sec.), Waco.
Kee, J. L., Waco.
*Kirby, F. F., Waco.
*Langford, M. L., Mart.
Langston, I. A., Waco.
*Lanham, H. M., Waco.
Lattimore, J. E., Waco.
Liddell, Geo. M., Waco.
*Lovelace, Carl, Waco.
Manney, J. E., Waco.
Maxfield, J. R., Waco.
*McDonald, T. L., Waco.
McCormick, R., Waco.
*Meadows, D. F., Waco.
Milam, E. A., Waco.
Miller, Garnett, Moody.
Minnock, R. F., Waco.
Murphy, P. C., Waco.
Nail, W. R., Waco.
*Payne, Lee S., Eddy.
Pope, F. M., West.
Quay, J. E., Waco.
Rayburn, C. E., Waco.
Reese, C. H., Waco.
Roddy, L. H., Waco.
Sadler, Leslie R., Waco.
*Saunders, M. B., Waco.
Sexton, J. Z., Waco.
Smith, C. E., Mart.
*Smith, Ed., Waco.
*Souther, W. L., Waco.
Tabb, T. E., Waco.
Trice, W. G., Elk (Axtel).
*Wedemeyer, E. L., Waco.
*Wells, C. V., Waco.
Wilcox, Wallace, Bosqueville.
Wilkes, W. O., Waco.
*Witt, J. M., Waco.
Womack, J. H., Waco.
Wood, R. Spencer, Waco.
*Wood, W. A. (Pres.), Waco.
Woolsey, Fleta, Waco.

NAVARRO COUNTY MEDICAL SOCIETY.

Blair, J. C., Kerens.
*Burnett, S. H., Corsicana.
Carter, W. W., Powell.
Cross, W. D., Corsicana.
*Currie, D. B., Kerens.
*Curtis, R. C., Corsicana.
*David, J. W. (Sec.), Corsicana.
Edgar, J. H., Richland.
Forrester, R. E., Corsicana.
Fountain, W. D., Corsicana.
*Halbert, W. W., Corsicana.
Hamill, D. B., Corsicana.
Hamilton, J. J., Eureka.
Hanks, M. L., Corbet.
Horn, Fred W., Wortham.
Jester, Homer B., Corsicana.
*Kelton, L. E., Corsicana.
*Logsdon, W. K., Corsicana.
*McClung, J. E., Corsicana.
McKean, J. C., Corsicana.
McLendon, T. P., Corsicana.
McMullan, H. R., Roane.
Matlock, Jno. W., Frost.
Miller, Dubart, Corsicana.
Miller, T. A., Corsicana.
*Newton, E. H., Corsicana.
Norwood, E. P., Corsicana.
Panton, H. H., Corsicana.
Roberts, E. H., Corsicana.
*Rowe, K. W., Kerens.
Russell, P. S., Corsicana.
Russell, W. R., Purdon.
Sadler, T. B., Corsicana.
*Sanders, A. D., Corsicana.
Sanders, Gurley, Kerens.
*Shell, W. T., Corsicana.
Slater, T. S., Navarro.
Sneed, K. W., Wortham.
Sneed, W. R., Corsicana.
Stevens, J. C., Richland.
Suttle, I. N. (Pres.), Corsicana.
Wills, T. O., Corsicana.

THIRTEENTH OR NORTHWEST DISTRICT.

Dr. J. H. Caton, Eastland, Councilor.

BAYLOR COUNTY MEDICAL SOCIETY.

Bunkley, J. F., Seymour.
*Johnson, C. F., Seymour.
Johnson, C. E., Seymour.
Lowry, R. K. (Sec.), Seymour.
McLemore, J. T., Round Timber.
Pistole, W. S., Seymour.
Ratliff, J. D., Seymour.
Richardson, J. A. (Pres.), Seymour.

CLAY COUNTY MEDICAL SOCIETY.

Allison, J. A., Henrietta.
Carmen, E. M., Vashti.
Crook, L. F. (Pres.), Bellevue.
Ferriss, J. H. (Sec.), Henrietta.
*Greer, Albert, Henrietta.
Hilburn, R. E., Wichita Falls.
Payne, E., Blue Grove.
*Vaughter, H. D., Byers.
Whitmire, J. D., Red Springs.

EASTLAND COUNTY MEDICAL SOCIETY.

*Ball, D., Cisco.
Barker, H. M., Olden.
Blackwell, Geo., Gorman.
*Blackwell, E. C., Gorman.
Brice, Jno. H., Cisco.
*Brown, L. C., Eastland.
*Burns, W. A., Moran.
Carter, C. H., Eastland.
*Caton, J. H., Eastland.
Clark, F. E., Cisco.
Dill, J. R., Rising Star.
Ferguson, R. C., Eastland.
*Graham, E. L. (Sec.), Cisco.
Gregory, J. W., Cisco.
Griffin, J. E., Cisco.
Griswold, G. W., Cisco.
Hale, Dr. Chas., Cisco.
Isbell, F. T., Eastland.
Jackson, Walter L., Ranger.
Jackson, T. G., Carbon.
Johnson, J. L., Eastland.
Kuykendall, P. M., Desdemonia.
Lee, W. P., Cisco.
Palmer, W. C., Ranger.
Patterson, Thos., Rising Star.
Payne, T. E., Eastland.
*Richardson, S. C., Eastland.
Rush, R. H., Gorman.
Scott, J. K., Cisco.
Shackelford, W. L., Ranger.
Stackable, J. B., Ranger.
Stubblefield, M. L. (Pres.), Gorman.
Tanner, H. B., Eastland.
Terrell, C. O., Ranger.
Townsend, E. R., Eastland.
Wilson, Carl, Ranger.

KNOX-HASKELL COUNTY MEDICAL SOCIETY.

Edwards, T. S., Knox City.
Farrington, W. P., Munday.
Frizzell, T. P. (Sec.), Knox City.
Gossett, J. J., Rule.
Hammond, J. E., Munday.
*Heard, E. F. (Pres.), Goree.
Howell, W. J., Rochester.
*Smith, A. A., Munday.
Taylor, W. M., Goree.

PARKER-PALO PINTO COUNTY MEDICAL SOCIETY.

Chandler, J. N., Weatherford.
Eastland, J. H. (Pres.), Minerals Wells.
Evans, A. J., Mineral Wells.
Garmany, J. F., Mineral Wells.
Garrett, A. S., Weatherford.
Lasater, W. B. (Sec.), Mineral Wells.
Law, C. B., Mineral Wells.
Leach, H. F., Weatherford.
McCorkle, J. H., Gordon.
McCracken, J. H., Mineral Wells.
Pedigo, W. S., Strawn.
Pyle, J. N., Mineral Wells.
Roberts, L. C., Mineral Wells.
Rowley, E. A., Strawn.
Simmons, Phil R., Weatherford.
Simmons, W. L., Breckenridge.
Smith, R. H., Palo Pinto.
Thompson, M., Weatherford.
Wagley, H. F., Mineral Wells.
Williams, C. B., Mineral Wells.
Yeager, E. F., Mineral Wells.

STEPHENS COUNTY MEDICAL SOCIETY.

Bryan, G. T. L., Mineral Wells.
Cartwright, H. H., Breckenridge.
*Cupp, C. D., Breckenridge.
Gray, R. W., Breckenridge.
Guinn, W. B., Breckenridge.
Kessler, Calvin, Breckenridge.
King, J. E., Breckenridge.
Neal, L. J., Breckenridge.
Nelson, J. H., Eliasville.
Ramming, H., Breckenridge.
Swinney, B. A. (Pres.), Breckenridge.
Turner, C. A., Woodson.
Webb, W. T., Breckenridge.
Wharton, J. W., Breckenridge.
*Wray, C. P., Parks.
Youngblood, D. J. R. (Sec.), Breckenridge.

WICHITA COUNTY MEDICAL SOCIETY.

Atkinson, Curtis, Wichita Falls.
Beckman, M. A., Wichita Falls.
Clark, Gordon, Iowa Park.
Clark, J. Frank, Iowa Park.
*Collard, F. R., Wichita Falls.
*Collins, B. R., Wichita Falls.
Cramer, S. E., Electra.
Fletcher, J. H., Wichita Falls.
*Gill, J. M. F., Burkburnett.
*Glover, M. H., Wichita Falls.
*Graham, R. H., Wichita Falls.
Guest, J. C. A., Wichita Falls.
Hall, J. D., Wichita Falls.
Hampshire, G. H., Wichita Falls.
Hargraves, R. L., Wichita Falls.
Hartsook, Chas. R., Wichita Falls.
Heyman, J. A., Wichita Falls.
Jones, Everett, Wichita Falls.
Kiel, O. B., Wichita Falls.
Kimbrough, O. T., Burkburnett.
Leach, Austin F., Wichita Falls.
*Ledford, H. P., Wichita Falls.
*Lee, Q. B., Wichita Falls.
Lowry, W. P., Wichita Falls.
Lynch, T. C., Wichita Falls.
Lynch, T. P., Iowa Park.
Mackechney, L, Wichita Falls.
Martin, W. P., Burkburnett.
McClory, Anthony, Wichita Falls.
Meredith, D., Wichita Falls.
Monroe, C. W., Electra.
*Nail, J. B., Wichita Falls.
Ogden, W. H., Electra.
*Parker, W. L., Wichita Falls.
Parnell, L. D., Wichita Falls.
*Parmley, T. H., Electra.

Patillo, A. D., Wichita Falls.
Powers, Jas. W., Wichita Falls.
Prichard, H. D., Wichita Falls.
Russell, I. D., Burkburnett.
Shepherd, F. D., Electra.
Singleton, Geo. T., Wichita Falls.
Smith, R. C., Wichita Falls.
*Stevenson, Chas. W. (Sec.), Wichita Falls.
Stripling, L. F., Wichita Falls.
Swartz, W. W., Wichita Falls.
Terrell, A. P., Wichita Falls.
Tyson, Walter, Wichita Falls.
Van Cleve, H. S., Burkburnett.
Walker, M. M. (Pres.), Wichita Falls.
Weller, Ralph E., Electra.
West, A. W., Wichita Falls.
White, F. S., Wichita Falls.
Wilson, O. W., Wichita Falls.
Wolford, R. B., Wichita Falls.

WILBARGER COUNTY MEDICAL SOCIETY.

*Dodson, J. E. (Pres.), Vernon.
*Flaniken, B. D., Vernon.
Garland, A. B., Vernon.
Hix, R. W., Vernon.
King, J. C., Harrold.
King, T. A., Vernon.
Moore, M. J., Vernon.
Moore, W. R., Vernon.
Parrish, Minnie O., Wichita Falls.
Reger, Howard, Vernon.
Rhoads, H. H., Vernon.
Rhodes, Wm. L., Vernon.
Rogers, A. C. (Sec.), Vernon.
Rogers, J. O., Odell.
Wilson, F. D., Vernon.

YOUNG COUNTY MEDICAL SOCIETY.

Duncan, R. A., Graham.
Gant, C. B. (Pres.), Graham.
Griffin, H. E., Graham.
*Hamilton, Geo. B., Olney.
Harrell, Fred S., Olney.
Hughes, E., Bryson.
Padgett, W. O. (Sec.), Graham.
Woods, J. E., Perrin.

FOURTEENTH OR NORTHERN DISTRICT.

Dr. A. B. Small, Dallas, Councilor.

COLLIN COUNTY MEDICAL SOCIETY.

Burt, J. D., Farmersville.
Burton, E. L., McKinney.
Compton, H. H., Allen.
Corry, A. C., Farmersville.
Ellis, W. D., Plano.
*Erwin, J. C., Jr., McKinney.
Erwin, J. C., Sr., McKinney.
Grounds, B. F., Blue Ridge.
Hailey, E. L., Celina.
Houston, D. F., McKinney.
*Harris, W. G. (Pres.), Plano.
Jones, A. E., Plano.
*Largent, Ben F., McKinney.
Manning, W. N., Richardson.
Mantooth, J. T., Altoga.
Mathers, W. R., McKinney.
Metz, M. S., McKinney.
Morrow, S. F., Blue Ridge.
Perry, M. O., Allen.
Robason, P. D. (Sec.), McKinney.
Verdier, R. A., McKinney.
Walker, R. N., Celina.
Wolford, H. F., McKinney.
Wright, Will C., Farmersville.
Wysong, W. S., McKinney.

COOKE COUNTY MEDICAL SOCIETY.

Bailey, R. H., Gainesville.
*Clements, O. E., Gainesville.
Cunningham, W. C., Dexter.
Dudley, J. D., Muenster.
*Higgins, D. M., Gainesville.
Hughes, C. T., Gainesville.
Hughes, Roy E., Gainesville.
Johnson, C. R., Gainesville.
Jeannette, J. G., Gainesville.
*Kuser, Leroy, Gainesville.
*Maxwell, C. L., Myra.
*Mead, E. C. (Sec.), Gainesville.
Murphy, J. H., Pilot Point.
Price, W. J., Gainesville.
Roberson, I. N., Gainesville.
Smith, Carrie W., Gainesville.
*Thayer, C. B., Gainesville.
Wattam, J. M. (Pres.), Gainesville.
*Whiddon, R. C., Gainesville.

DALLAS COUNTY MEDICAL SOCIETY.

Alexander, J. C., Dallas.
*Andrews, B. C., Dallas.
Ard, Ben N., Dallas.
Aronson, E., Dallas.
Austin, Florence.
Austin, J. L., Rockwall.
*Bailey, C. O., Dallas.
*Baird, R. W., Dallas.
*Baker, W. T., Dallas.
Barton, R. M., Dallas.
*Beall, J. R., Dallas.
Beddoe, R. E., Tungshan, Canton, China.
Bellamy, C. H., Dallas.
*Bell, M. D., Dallas.
Berger, B. J., Dallas.
Bettison, D. L., Dallas.
*Black, J. H., Dallas.
Bland, L. F., Dallas.
Block, Cecil, Dallas.
Blount, E. A., Dallas.
*Boone, M. A., Dallas.
*Bourland, J. W., Dallas.
Boyd, J. M., Dallas.
Brandeau, W. W., Dallas.
Brannin, E. B., Dallas.
Breihan, E. W., Dallas.
Brereton, G. E., Dallas.
Brewer, T. C., Dallas.
Brooks, E. J., Dallas.
Brown, C. F., Dallas.
Brown, C. S., Dallas.
Browne, W. C., Dallas.
Bruton, E. B., Dallas.
Burnett, E. W., Carrollton.
Buford, B. R., Dallas.
Calhoun, J. S., Dallas.
Calhoun, Nina Fay, Dallas.
Calhoun, T. J., Dallas.
Carlisle, Chas. P., Dallas.
Carlisle, Geo. L., Dallas.
Carnes, A. W., Hutchins.
Carnathan, W. C., Dallas.
Carpenter, E. R., Dallas.
Carr, M. M., Dallas.
Carrick, M. M., Dallas.
Carroll, Grayson L., Dallas.
Carroll, J. D., Dallas.
*Carroll, W. B., Dallas.
Carter, Chas. F., Dallas.
Carter, C. B., Dallas.
*Carter, D. W., Jr., Dallas.
Carter, Earl L., Dallas.
*Cary, E. H., Dallas.
Catto, C. G., Dallas.
Cecil, Howard L., Dallas.
Clark, F. D., Dallas.
Clay, Henry, Dallas.
Cobb, D. H., Dallas.
Coble, J. M., Dallas.
Cochran, L. M., Dallas.
Coke, M. W., Dallas.
Cook, Thos. E., Dallas.
Cooke, L. B., Dallas.
Cookerly, Van, Dallas.
Copeland, H. V., Grand Prairie.
Corry, J. F., Rockwall.
Cowart, R. W., Dallas.
Crabtree, B. F., Dallas.
Cromwell, R. L., 222 Riverside Drive, N. Y.
Crow, W. E., Dallas.
Daniel, R. H., Dallas.
Davis, David B., Dallas.
Davis, J. Spencer, Dallas.
Dawson, J. L., Dallas.
Dean, J. H., Dallas.
Deatherage, Wm., Dallas.
Deatherage, W. R., Dallas.
Decherd, H. B., Dallas.
Denton, Guy T., Dallas.
Dickey, E. V., Dallas.
Donald, Homer, Dallas.
Doolittle, H. M., Dallas.
Dorman, J. H., Dallas.
*Downs, J. T., Dallas.
Driver, Sim, Dallas.
Duff, P. H., Dallas.
*Dunlap, Elbert, Dallas.
DuPuy, Howard, Dallas.
Edwards, Wm. L., Dallas.
Ellis, L. C., Dallas.
Embree, J. W., Dallas.
Estes, I. A., Dallas.
Evans, J. P., Dallas.
Farrar, Mary, Dallas.
Fetzer, L. W., Dallas.
Finnegan, C. R., Dallas.
Fisher, T. B., Dallas.
*Flynn, C. W., Dallas.
Flythe, A. G., Dallas.
Folsom, A. I., Dallas.
Ford, J. F., Dallas.
Foster, W. C., Dallas.
*Fowler, W. W. (Sec.), Dallas.
Freedman, S. M., Dallas.
*Freed, Harold, Dallas.
Garrett, H. G., Dallas.
Gauldin, R. J., Dallas.
Gibbons, O. W., Dallas.
*Gilbert, A. Clay, Dallas.
*Gilbert, F. M., Irving.
Gilbert, T. C., Dallas.
*Giles, R. B., Dallas.
Girard, P. M., Dallas.
Glass, R. J., Dallas.
Goff, G. F., Dallas.
*Goggans, Roy, Dallas.
Gordon, E. S., Dallas.
Gosline, H. I., Dallas.
*Greer, B. E., Dallas.
Griffin, B. H., Dallas.
*Grigsby, C. M., Dallas.
*Hackler, G. M., Dallas.
Hackney, U. P., Dallas.
Hale, Wm., Jr., Dallas.
Haley, John, Irving.
Haley, W. E., Dallas.
Hambleton, B. F., Dallas.
Hampton, J. A., Dallas.
*Hannah, C. R., Dallas.
Hanson, W. L., Dallas.
Harben, R. P., Dallas.
Harber, H. P., Dallas.
Harder, I. E., Dallas.
Hardin, A. D., Dallas.
Hardin, D. H., Dallas.
Harral, Whitfield, Dallas.
Harrington, S. F., Dallas.
Harrison, Frank, Dallas.
*Herndon, J. H., Garland.
Hill, S. M., Dallas.
Hodges, J. Shirley, Dallas.
Holder, C. C., Dallas.
Holderness, J. R., Dallas.
Holland, L. B., Dallas.
*Hopkins, May Agnes, Dallas.
Howard, Wm. E., Dallas.
Hudson, W. L., Dallas.
Irvine, E. J., Dallas.
Jablow, H. B., Dallas.
Jackson, C. M., Rockwall.
Jackson, Reuben, Dallas.
Jackson, Rice R., Dallas.
Jacobson, H. B., Dallas.
Jamison, Cyrus, Dallas.
*Jarmon, T. M., Dallas.
*Jenkins, Jno. L., Dallas.
Jenkins, Speight, Dallas.
Jenks, R. W., Dallas.
Johnson, C. L., Dallas.
Jones, I. G., Dallas.
Jones, J. Guy, Dallas.
*Jones, W. D. (Pres.), Dallas.
*Kahn, S. H., Dallas.
Keller, L. L., Dallas.
Keller, Roy L., Dallas.
Kindley, G. C., Dallas.
King, S. R., Dallas.
Kinsell, B., Dallas.
Knowles, W. M., Dallas.
Kolaczkowski, C. H., Dallas.
Lehman, J. R., Dallas.
Levy, H. R., Dallas.
Lindsay, G. A., Dallas.
Liveley, W. M., Dallas.
Loomis, E. W., Dallas.
Looney, W. W., Dallas.
Lott, M. E., Dallas.
Love, T. S., Dallas.
Luecke, P. E., Dallas.
Lynch, K. M., Dallas.
Maffett, Minnie L., Dallas.
*Mahon, G. D., Dallas.
Marchman, O. M., Dallas.
Marshall, J. H., Dallas.
*Martin, C. L., Dallas.
*Martin, J. M., Dallas.
Massey, W. E., Dallas.
Matthews, A. A., Dallas.
Matthews, P. W., Dallas.
Maupin, W. A., Rowlett.
McAdams, W. R., Dallas.
McAfee, J. B., Dallas.
McBride, R. B., Dallas.
*McFarland, G. B., Dallas.
McGaffey, C. N., Dallas.
McGuire, J. H., Dallas.
McIver, Julius, Dallas.
McLaurin, Hugh, Dallas.
McLaurin, J. G., Dallas.
McLeod, J. N., Dallas.

McRee, M. M., Dallas.
*McReynolds, J. O., Dallas.
Mendenball, Elliott, Dallas.
Michie, O. C., Dallas.
Miller, S. A., Dallas.
*Miller, Tate, Dallas.
*Milliken, Gibbs, Galveston.
Milliken, S. E., Dallas.
*Milwee, R. H., Dallas.
Montgomery, J. T., Dallas.
*Moore, H. Leslie, Dallas.
*Moore, R. H., Dallas.
Morgan, F. B., Dallas.
Morris, G. E., Dallas.
Morris, I. J., Dallas.
Morris, J. H., Dallas.
*Moursund, W. H., Dallas.
Murchison, D. R., Dallas.
Myers, D. V., Dallas.
Nash, A. W., Dallas.
*Nash, C. C., Dallas.
Nelson, L. A., Dallas.
Neuman, Albert, Dallas.
Newsom, A. A., Dallas.
*Newton, F. H., Dallas.
Nichols, Jonah, Dallas.
O'Brien, J. D., Dallas.
Ormsby, F. E., Dallas.
Parks, A. J., Dallas.
Parks, C. C., Lancaster.
Payne, R. S., Dallas.
Peck, W. M., Dallas.
*Perkins, J. F., Dallas.
Pickett, W. F., Dallas.
*Pierce, F. A., Dallas.
Pierce, J. L., Dallas.
Poe, J. G., Dallas.
Poe, W. D., Dallas.
Potts, James M., Dallas.
Poulter, J. W., Dallas.
Powell, Homer, Dallas.
Probert, W. H., Dallas.
Ratliff, H. L., Dallas.
Rea, Melvin O., Dallas.
Riddler, G. A., Dallas.
*Riddle, Penn, Dallas.
Robertson, J. A., Dallas.
Robinson, W. L., Dallas.
Robinson, W. T., Dallas.
Rogers, Paul A., Dallas.
*Rosser, Curtice, Dallas.
*Rosser, C. M., Dallas.
Rubenstein, B., Dallas.
Rushing, E. O., Dallas.
Sacher, C. J., Dallas.
Samuell, W. W., Dallas.
Scanlan, V. P., Dallas.
Schaub, G. A., Dallas.
Schenewerk, G. A., Dallas.
Schmaltz, W. F., Dallas.
*Schoolfield, Ben L., Dallas.
Schuett, A. J., Dallas.
Schulze, E. C., Dallas.
*Schwenkenberg, A. J., Dallas.
Seay, D. E., Dallas.
*Seely, M. S., Dallas.
Shanks, R. C., Grand Prairie.
Shannon, Hall, Dallas.
Shelmire, J. B., Dallas.
Shelmire, Jesse Bedford, Dallas.
Short, R. F., Dallas.
Shortal, W. W., Dallas.
*Simpson, C. W., Dallas.
*Small, A. B., Dallas.
Smart, J. H., Dallas.
*Smith, DeWitt, Dallas.
Smith, Henry T., Dallas.
Smith, J. R., Dallas.
Smith, V. L., Dallas.
Smith, W. Edgar, Dallas.
Smoot, J. B., Dallas.
Sorrels, C. C., Dallas.
*Spangler, Davis, Dallas.
*Spence, R. C., Dallas.
Spencer, C. L., Dallas.
Spradley, J. B., Dallas.
Standifer, C. H., San Antonio.
Stephenson, J. H., Dallas.
Stephenson, W. O., Dallas.
Stiles, J. C., Dallas.
Still, J. M., Dallas.
Stone, M. P., Dallas.
Strother, E. B., Dallas.
Stroud, E. F., Dallas.
Super, A. R., Dallas.
Sypert, J. R., Dallas.
*Taber, M. E., Dallas.
*Terrill, J. J., Dallas.
Terry, Jack S., Dallas.
Thaxton, G. B., Dallas.
Thomasson, A. R., Dallas.
*Thompson, L. S., Dallas.
Thornton, C. W., Dallas.
Tittle, L. C., Dallas.
Tomkies, J. S., Dallas.
Touchstone, J. L., Dallas.
Trumbull, R. A., Dallas.
*Turner, J. S., Dallas.
Uhler, Claude, Dallas.
*Underwood, Geo. M., Dallas.
Usry, R. S., Dallas.
Van Duzen, R. E., Dallas.
Veal, G. T., Dallas.
Walcott, H. G., Dallas.
Walker, P. M., Dallas.
Warren, C. H., Dallas.
Watkins, A. B., Seagoville.
Watson, C. E., Dallas.
Watson, J. T., Dallas.
Weaver, S. D., Dallas.
Webb, Sam, Dallas.
Wells, J. T., Dallas.
White, C. V., Dallas.
White, Edward, Dallas.
White, W. T., Dallas.
*Whitis, Rufus, Dallas.
*Wilkinson, Albert, Dallas.
Winford, T. E., Dallas.
Williams, G. R., Dallas.
Williams, T. S., Dallas.
Wilson, J. E., Lancaster.
Winans, H. M., Dallas.
Witt, Guy F., Dallas.
Wolfe, Joseph, Dallas.
Woodard, T. L., Dallas.
Worley, J. R., Dallas.
Wright, R. E., Dallas.
Yancey, R. S., Dallas.
Young, J. C., Dallas.

DELTA COUNTY MEDICAL SOCIETY.

Barnett, J. M., Ladonia.
Blair, Samuel F., Cooper.
Chiles, Frank, Pecan Gap.
Darwin, Thos. M., Cooper.
*Estep, Marshall A., Lake Creek.
*Forrester, Wm. H., Klondike.
Hearn, Wm. O., Enloe.
Janes, O. Y., Cooper.
*Lowry, David O. (Pres.), Cooper.
Taylor, C. C. (Sec.), Cooper.
Westerman, David B., Cooper.
Wheat, E. B., Cooper.
Woodruff, Eugene E., Cooper.

DENTON COUNTY MEDICAL SOCIETY.

Allen, Joseph H., Justin.
*Amos, H. C., Denton.
Archer, C. W., Lewisville.
Copenhaver, J. E., Aubrey.
Dobbins, T. C., Denton.
Evans, Rebecca M. (Pres.), Denton.
Flemming, J. E., Pilot Point.
Francklow, C. D., Pilot Point.
*Fullingim, M. D. (Sec.), Denton.
Harris, T. M., Pilot Point.
Herrick, Jessie L., Denton.
*Inge, J. M., Denton.
*Kimbrough, W. C., Denton.
Kirkpatrick, D. F., Lewisville.
*Lain, Geo. D., Sanger.
Lester, E. R., Roanoke.
*Lipscomb, P., Denton.
*Martin, M. L., Denton.
Robertson, H. N., Ponder.
*Ross, O. W., Krum.
Rowe, H., Denton.
Stover, J. E., Truscott.
*Taylor, D. G., Garza.
Weir, W. C., Lewisville.

ELLIS COUNTY MEDICAL SOCIETY.

Adamson, F. R., Waxahachie.
Blind, Chas. A. (Sec.), Waxahachie.
Boyd, W. D., Waxahachie.
Calvert, A. C., Italy.
Campbell, W. E., Ennis.
Carlisle, F. H., Italy.
Clark, L. E., Ennis.
Cook, C. P., Ennis.
Cox, A. J., Ennis.
Donnell, Herbert, Waxahachie.
*Forehand, J. F., Bardwell.
Germany, J. W., Ennis.
*Gilcreest, J. E., Ennis.
Goddard, G. M., Waxahachie.
*Gough, E. F., Waxahachie.
Graham, L. H., Waxahachie.
*Grant, W. A., Waxahachie.
*Gray, C. E., Ennis.
Hall, R. L., Italy.
Hampton, A. T., Ferris.
*Harris, J. P., Midlothian.
Hastings, M. E., Waxahachie.
*House, R. E., Ferris.
Jenkins, F. H., Waxahachie.
Jenkins, J. B., Waxahachie.
Jenkins, W. M., Waxahachie.
Jones, J. E., Waxahachie.
*Killian, J. E., Milford.
McBurnett, C. W., Palmer.
*McCall, W. P., Ennis.
Moore, N. L., Palmer.
*Munroe, R. M., Milford.
Pickett, N. J., Milford.
*Rains, J. L., Ennis.
Sims, W. P., Waxahachie.
*Story, Fred L., Ennis.
Sweatt, O. P., Waxahachie.
Tenery, W. C., Waxahachie.
Terry, J. S., Ennis.
Thomas, A. L., Ennis.
*Thomas, Wm. O., Avalon.
*Thompson, D. G., Waxahachie.
Tibbs, R. I., Maypearl.
Wadley, S. L., Palmer.
*Watson, S. H., Waxahachie.
*West, W. F., Waxahachie.

FANNIN COUNTY MEDICAL SOCIETY.

Adair, C. C., Bailey.
Alexander, W. H., Floydada.
Cappleman, J. J., Honey Grove.
Carleton, J. C., Bonham.
Cooper, W. A., Windom.
Donaldson, J. M., Dodd City.
Dunsworth, O. C., Trenton.
Fry, S. D., Ladonia.
*Gray, C. A., Bonham.
Joiner, J. C., Honey Grove.
Kennedy, A. B. (Pres.), Bonham.
Leeman, H. H., Windom.
McDaniel, H. A., Bonham.
Nesbitt, Irene T., Dallas.
Nesbitt, J. H., Dallas.
*Nevill, J. E., Bonham.
Nevill, O. C. (Sec.), Bonham.
Pendergrass, J. J., Leonard.
Richardson, R. W., Bonham.
Saunders, Jack, Bonham.
Savage, H. B., Honey Grove.
Spense, S. E., Dodd City.
Ward, W. Y., Ivanhoe.
Whittenberg, W. F., Honey Grove.
Davis, R. C., Bonham.
Gill, J. J., Eros, La.

GRAYSON COUNTY MEDICAL SOCIETY.

*Acheson, Alex W., Denison.
Ahlers, O. C., Sherman.
Birt, J. B., Harper.
Blassingame, A. A., Denison.
Brown, G. F., Sherman.
Brown, H. L., Sherman.
Carraway, J. H., Sadler.
Carter, C. S., Whitewright.
Carter, Wilbur, Sherman.
Crowder, T. W., Sherman.
Curlee, W. O., Bells.
Dimmitt, J. S., Sherman.
Enloe, D. C., Sherman.
Fowler, F. F., Denison.
Freels, A. M., Denison.
Fulton, E. V., Bells.
Gleckler, Arthur, Denison.
Gunby, I. P., Sherman.
Gunby, Paul, Sherman.
Henschen, G. E. (Pres.), Sherman.
Holt, Jas. H., Sherman.
Hoard, W. R., Sherman.
Jamison, D. K., Denison.
King, C. L., Whitesboro.
Ledbetter, E. E., Tioga.
*Lee, W. A. (Sec.), Denison.
Long, T. J., Denison.
Mayes, J. A., Denison.
McElhannon, A. M., Sherman.
McGregor, Chas. T., Denison.
Millen, S. C., Gunter.
Miller, F. P., Sherman.
Miller, O. H., Denison.
Moore, S. D., Van Alstyne.
*Morrison, M. M., Denison.
Neathery, E. J., Sherman.
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Saunders, Bacon, Fort Worth.
*Saunders, Roy, Fort Worth.
*Schenck, Chas. P., Fort Worth.
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*Schwarz, Edwin G., Fort Worth.
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Fry, Harry T., Wills Point.
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Longino, H. E., Texarkana.
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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

The State Board of Medical Examiners Calls for Help.—Notwithstanding the Medical Practice Act does not make it incumbent upon the State Board of Medical Examiners, or any other state agency, as for that, to see that the Medical Practice Act is enforced, the Board of Examiners naturally feels the responsibility and has made efforts from time to time at enforcement. The trouble is, the Board has no funds except the application fees, and these are not sufficient for the purposes of prosecution. In short, the Board is helpless in this respect. It can do little more than examine applicants for license and keep a record of its transactions. There is hardly money enough for the necessary clerical hire. In the face of this contingency, and appreciating the dire need of enforcement of the Medical Practice Act, the Board has appealed for help, through the following letter addressed to President Dr. C. M. Rosser of the State Medical Association, signed by Drs. H. C. Morrow, President, and T. J. Crowe, Secretary, of the Board:

FROM ATTORNEY GENERAL DAN MOODY.*

"I regard the Medical Practice Act as a piece of humanitarian legislation having as its evident purpose the protection of sick and suffering people from the dangers incident to intrusting the treatment of their bodies into the hands of people who are not learned in the science and art of medicine and surgery. Experience has proved that the medical profession, by research and study, has discovered many things that have done much toward the amelioration of pain and suffering of human beings. The practice of this profession naturally requires years and years of study and research. When people are sick or in pain, they are prone to take the advice of anyone and are ready to embrace any promised quick cure of their trouble. The law has as its purpose, the protection of the citizenship from the dangers incident to placing the care of such a complex thing as a human body when torn by disease, either mental or physical, into the hands of one who is not fitted by proper training to take charge of such a difficult and uncertain problem. I believe that for humanitarian reasons, this statute should be rigidly enforced."

*Paragraph from a letter to Mr. C. P. Shepherd, County Attorney, Ballinger, Texas.

"You are familiar with the history of medical registration in Texas, and you know that for many years the reputable medical profession of this State has endeavored to secure the enactment of a law that would provide adequate protection for the health of our people without discriminating unjustly against practitioners of any school, or system, of practice.

"In 1922, you participated in a conference of many physicians — representatives of all schools, or systems, of registered practitioners of Texas— when the provisions of a medical bill to be submitted to the Thirty-eighth Legislature were agreed upon and unanimously adopted. Later, this bill was presented to the Legislature, and subsequently it became what is now generally regarded as the most nearly perfect, non-discriminative Medical Practice Act in existence.

"Notwithstanding Texas now has an almost ideal, enforceable medical act, which has stood the tests of the State and the Federal courts, this board is not prepared to properly enforce it against a large number of practitioners who are disposed to violate it.

"You are aware that this board is not financed by the state; that it is maintained by the fees collected from applicants for license to practice in Texas; that the revenues so received are barely sufficient to meet its current administrative expenses.

"Being without sufficient funds the board cannot function as effectually as the law intended it should;

and its members now believe that they cannot give the service that is expected of them without the active co-operation and support of all of the state organizations of registered physicians.

"The board respectfully requests that you submit this letter to the Texas Medical Association and ask that its members be urged to give the board all possible co-operation and support—individually and collectively—in connection with the enforcement of the Medical Practice Act."

Following a conference with the Executive Council, President Dr. Rosser met the issue in the following reply:

"Your favor of May 15, requesting the coöperation and support of the State Medical Association of Texas and its members, individually and collectively, in the enforcement of the Medical Practice Act, has been gladly received. Knowing the interest of our organization in the Medical Practice Act as you do, I am sure you will appreciate that whatever we can do to help, within the bounds of the proprieties, will be done. Your letter has been officially placed before our advisory council, and without further preliminary discussion, I am pleased to inform you that your request will be vigorously acceded to, the details of our participation to be worked out later.

"Perhaps I might, in this connection, call your attention to the previous attitude of the State Medical Association in the matter of enforcing this law. We have long realized that if we expected to finish the task we undertook in 1903, when the present Medical Practice Act had its inception, we would find it necessary to engage in some sort of enforcement campaign, such as you evidently intend to conduct. We had, however, hoped that the public, and the law enforcement officials of this State, would take an interest in these important matters and permit us to help rather than to require of us any degree of leadership. The public is so quick to accuse the medical profession of ulterior motives where enforcement of the Medical Practice Act is concerned. And while the medical profession is accustomed to false accusations and does not greatly mind, the fact remains that false charges reflect unfavorably on both the individual and the cause he espouses, no less in our case than elsewhere.

"Immediately that this law was perfected, principally by the addition of the injunction clause, inquiries began to reach our central office, as to what the medical profession proposed to do about enforcing the law. These inquiries led to the adoption of a definite policy, which I may recall to your attention, as follows:

"The Council on Legislation and Public Instruction of the State Medical Association, representing the great majority of the legal practitioners of medicine in the State, congratulates the public upon the protection which it is soon to receive from the Medical Practice Act, and calls the attention of the public to the fact that the enforcement of this law is the prime responsibility of the law enforcement officials of the State, and only secondarily the responsibility of the medical profession as such. However, because of the intimate knowledge the medical profession is in possession of, as to the harm likely to be done by the class of practitioners usually seeking to practice medicine without the sanction of the law, the Council desires to place the reputable physicians of Texas at the disposal of the courts and the officers of the law in the enforcement of this act.

"It will be noted that in deciding to help you in this instance we are not materially departing from the position already assumed. We are, perhaps, promising to exercise leadership in some particulars, and we will not be apologetic about it, but we will be acting in coöperation with the courts and the officers of the law in the enforcement of the act."

It remains to be decided just what steps will be taken by our organization "to place the reputable physicians of Texas at the disposal of the courts and the officers of the law in the enforcement of this act," and be sure that the courts will take advantage of the opportunity thus offered. We are not to run away with the idea that the medical profession even now is in the law enforcement business. It distinctly is not. We simply know that perhaps the most useful law on our statute books is being daily flaunted, and without excuse, except the desire for money, and that people are being injured on every hand, some of them seriously and even fatally, by quacks, medical impostors and incompetents, all because the public is not sufficiently informed on these intricate matters to protect itself. Under these circumstances, how can we in all conscience stand by and say nothing? And speaking at all, we must speak with determination and with conviction. We must know where the offenders are, what they are doing and what public sentiment is supporting them, and be ready. We must encourage those who are responsible for the enforcement of this law, and create public sentiment in its favor, by telling the public the truth of the situation. There are agencies ready and willing to act.

In October of 1923, a conference on enforcement of the Medical Practice Act was held in Dallas, under the patronage of the State Board of Medical Examiners and the State Board of Health. Representatives were present from each of the recognized state medical organizations, and numerous laymen

interested in the problem. A permanent organization was effected and officers elected. The movement was to be financed by volunteer contributions. It is not known just what happened to this organization. Possibly it could be revived. The State Medical Association was represented, and agreed to help. A discussion of this conference was published in the November, 1923, number of the JOURNAL.

A rather full and free discussion of the relationship of the chiropractor to the new Medical Practice Act, was published in the May, 1923, JOURNAL, and the problem of enforcing the Medical Practice Act in general was discussed in the July and October, 1923, numbers.

The Present Medical Practice Act became a law in 1907. It supplanted the ancient and dishonored multiple board system. It is interesting to consider how this came about. There existed at the time three boards, the Regular, Homeopathic and Eclectic. It often transpired that an applicant would be rejected by one board and go immediately before another and secure license to practice medicine in Texas, notwithstanding the law required that applicants could not come again before their own board within the period of a year. There was nothing in the law to require that a licentiate of the Homeopathic Board, for instance, strictly adhere to homeopathic principles in practice. There were separate and distinct (and perhaps more than that) standards, and one could pay his money and take his choice. There were many criticisms of the system, and conditions were undoubtedly bad. About that time the osteopaths, who were beginning to assume proportions in the State as a group, demanded a board of their own and, to be honest about it, we had to admit that the osteopaths were as much entitled to a board as any other path, notwithstanding this cult was at that time in a very poor state from the standpoint of science and ethics.

Our then president, Dr. F. E. Daniels, of Austin, viewing the situation with alarm, called a meeting of the House of Delegates of the State Medical Association. That was in 1904, we believe. Our attorneys suggested that the plea of the osteopaths be met by the contrary plea that there should be but one board to pass on all applicants for license, regardless of school of practice, so called. This was agreed to as an expedient, but not as a principle. Such a bill was prepared, and much to our surprise, and consternation, almost became a law; but the osteopathic prospects went glimmering. Thus the one board idea had its inception. Further study led to the very logical conclusion that the only fair way to regulate the practice of medicine was to examine only on the fundamental principles of medicine, including the basic sciences, and ignore methods of practice. It was clear to those who were managing such affairs at the time, that no matter what the law might provide by way of examination on any particular method of practice, it could not compel a practitioner to govern himself accordingly. Indeed, such a law would be intolerable were it constitutional and practicable. The State would then most certainly be in the practice of medicine, in that it would assume to pass judgment on scientific questions and clinical conclusions. The practice of medicine must ever be a personal affair, and the State is not a person. There were objections to the plan, no less among our own number than among the members of the so-called minor schools, but eventually practically all agreed that there was no other way around.

A bill was prepared and variously modified through conferences and the like, and introduced in the Legislature, sponsored by all the schools of medicine except the osteopathic, which held out for quite a time, and until it was shown that the osteopaths, except for their methods of practice, taught or claimed to teach the same branches taught by the colleges of other schools of medicine, and very largely out of the same books. To make a long story short, the osteopaths agreed to the plan, after they were assured that the influence of the medical profession of the State, as represented by the groups supporting the bill, would be exerted to see that the osteopaths were not treated unfairly or unjustly in its operations. The bill became a law in 1907, as stated. It came immediately under the fire of the medical underworld, and was speedily put to the test in the

higher courts of our land. However, the law proved to be in exact accord with the provisions of our State Constitution, and the definition of the practice of medicine included therein, which was devised by Senator B. F. Looney of Greenville, proved to be not only adequate but reasonable and sensible. While the law proved satisfactory in most particulars, it fell far short of insuring successful prosecution, in that offenders against the law could afford to pay the costs of prosecution, including jail sentences. Indeed, prosecution often proved valuable advertising. There were technical difficulties not necessary to mention. Eventually, the State Board of Medical Examiners appealed to the State Medical Association for help in amending the law, which call had been long deferred because of the fear of unfavorable and hurtful amendments, and an indisposition to start another war such as we had gone through with prior to the final passage of the law. The State Medical Association at first refused to consider the matter, holding that the problem and the responsibility was that of the public and not of the medical profession, but finally it was concluded that the public was in the dark in all such matters, and could not be held to blame until more light was forthcoming.

In conjunction with the State Board, the legislative committee of the State Medical Association prepared the necessary corrective amendments and sought their passage. There was a hard, bitter and expensive fight, and at the end failure. Our friends in the Legislature told us that they were themselves sold on the idea of the one board law, and were anxious to see the law perfected and enforced, but the public was not with them, and they had to serve the public as a whole and not the medical profession as such. They advised us to go to the public with the story. This we did later, to a modest extent, and the amendments sought were enacted, but not until the medical profession had promised to see that a real campaign of publicity and education was conducted, for the enlightenment of the public. The law was variously and wisely amended, but the amendment upon which success in enforcement depended, was the injunction feature. This amendment was not of the cold-blooded, objectionable variety of injunctions. The accused could not be summarily handled by a court, without every chance to get out from under. There first must be conviction of an offense against the law, then the injunction, and then conviction of violating the injunction by again doing the thing originally complained of. Certainly, that was fair enough. Up to this time many courts had refused to prosecute alleged violators of this law, because convictions were difficult to secure in the light of the deplorable ignorance of the public in such matters, and because convictions were not effective, in that they did not deter those convicted from continuing in their practices. Court officials felt that they could not afford to clutter up the dockets with such cases.

Following the perfection of the law it was thought that prosecuting authorities would get busy and the courts would have no alternative but to convict when it was proven that those against whom complaint had been made had actually done the things the courts had ruled were in violation of the law. It appeared quite certain that those individuals who gladly paid the small fines assessed and served the short terms in jail formerly required, would not willingly suffer the penalties of violating the injunction of the court. We were considerably disappointed. There were a few convictions and a few injunctions applied, but on the whole both the public and the prosecuting authorities remained inactive. At the same time, the practitioners of one of the cults set in motion quite ambitious plans looking to the enactment of legislation legalizing their practices. At one time there was grave danger that the Legislature would be misled by these people. It was at this culmination of affairs that the State Medical Association undertook to go before the public with its story of the practice of scientific medicine and with its plea for regulation thereof by the State on a decently high plane. It was hoped that in this manner the public would be brought to a realization that in the enforcement of this law, and in the protection of its integrity, lay their own safeguard and their best interests. The campaign was a success, beyond the expectations of those who managed it, but there still remains much to be done before the final objective has been attained.

And so we stand by, with the most sensible, reasonable and effective Medical Practice Act in the world, and make little or no effort to see that it functions.

Policies of the Present Administration.—The newly created executive council has begun to function. The determination to actively support the Board of Medical Examiners in its efforts to enforce the Medical Practice Act was decided upon by this council, following submission of the proposition by the president. This is as the by-laws intended. Now comes the council with a concrete statement of the policies of the present administration, determined upon in the same manner. In other words, the president in-

formed the council what he desired to do, and how he wanted to do it, in so many words, and the council, following full and free discussion, made concrete decisions. These are as follows:

"1. Encourage individual observation of proper ethical relations between members of the medical profession and between the medical profession and the people it serves.

"2. Admonish prompt compliance with State laws relating to vital statistics.

"3. Appeal to our members, individually and collectively, through the medium of moral suasion, to keep faith with the Federal and State governments in the matter of prescribing narcotics and alcoholic liquors.

"4. Reclaim to the association respectable physicians who have for surmountable causes allowed their membership to lapse.

"5. Bring into membership all educated, honorable and legally qualified practitioners of medicine who have heretofore neglected to join their respective county societies.

"6. Commend to component county societies the advisability of giving periodic publicity through the lay press to their membership roster, as an aid to the public in determining who are legally qualified to practice medicine and who may be considered ethical in their practice.

"7. Give active support to the law enforcement officers and the courts, in the detection and prosecution of physicians guilty of immoral or criminal practices of any character.

"8. Coöperate with the State Board of Medical Examiners and the law enforcement officers of the State, as fully and aggressively as may be required, in prosecuting alleged violators of the Medical Practice Act."

This program is in addition to the routine policies of the association, of course, and calls for considerable extension of activities. With the increased dues, the additional obligations may be safely incurred. There are constituted agencies for carrying out these several enterprises, some of which will have to be augmented. Only two of these policies may be said to be new, and we have been leading up to these for some years. The matter of aiding in the enforcement of the Medical Practice Act has already been discussed in these columns. Our part will be to support constituted authorities and continue to educate the public.

The matter of periodically publishing our county society rosters in the lay press while not new, is not a familiar project to many of our members. Indeed, the inclination is to object to this procedure, and under the old order of things the procedure would unquestionably be objectionable. However, in this day and time there is a demand for authentic information as to who are entitled to practice medicine and who of them may be relied upon by the sick (and well) public. A county society roster may not be an assurance of qualification, except for legal authority to practice medicine, but it is about as good as can be done for the present. No individual profits by such a policy, and there is no self-praise involved. In short, there is nothing that could be construed as a violation of medical ethics. Whether the specialty of individual members of county societies, and their office addresses, be included, is a matter to be decided upon if the project is adopted, as must be the method of prorating the cost of the space used. In fact, there are many collateral problems, all of which the local society will be in a position to solve. Newspapers are inclined to resent criticisms by the medical profession of the advertising they carry, very largely because physicians will not themselves advertise. No matter how much we may shout "Truth in advertising," and all of that, the fact remains that the newspapers must pay their way and make their profit by their advertising patronage. This does not excuse the harmful medical advertising they sometimes carry, but it does explain why they sometimes carry it. A little sympathy by way of patronage helps immensely. We would not pay the newspapers to be good, but we would take advantage of an opportunity to help the newspapers when discharging an obligation which seems to exist. No doubt about it, "it pays to advertise." The difficulty, so far as doctors are concerned, is how to do so without involving the discreditable practice of self-laudation and misrepresentation. Individual advertising is not practicable, for that reason. Group advertising is another matter, and becomes objectionable only when resort is had to objectionable methods. While county societies regulate this matter, in accordance with decisions of national and state organizations, it would be quite possible for one county society to adopt advertising methods that would be an offense to another county society, and a discrimination against doctors of neighboring communities. The board of councilors of the State Association and the judicial council of the American Medical Association, are given the responsibility of handling such problems as these. In the meantime, we are urging the advisability of from time to time publishing the names of our members in the lay press, and paying for the service. More will be said in regard to this problem at another time.

We are pleased to refer to the first concrete evidence of the successful operation of our new by-laws in this connection. The announcement of the official family for the present administration will be made in the August number of the JOURNAL.

The Atlantic City Meeting of the A. M. A. was the distinct success that had been ex-

pected. There were 4,861 fellows registered which, while falling nearly 3,000 short of the registration at Chicago last year, compares favorably with the registration at other meetings. With so many large cities near by, it is rather strange that the registration at Atlantic City did not greatly exceed that at other places. There were 803 registered from the state of New York, and 1,240 from Pennsylvania. New Jersey furnished 422 registrants. Illinois, half way across the continent, sent 208. There were 149 Texans at the Chicago session, and 50 at Atlantic City. The following registered from Texas:

R. W. Baird, Dallas; Richard E. Barr, Orange; D. L. Bettison, Dallas; Edwin B. Buchanan, Albany; J. W. Burns, Cuero; E. H. Cary, Dallas; I. C. Chase, Fort Worth; W. W. Coulter, Houston; E. D. Crutchfield, Galveston; Louis Daily, Houston; J. Spencer Davis, Dallas; Herbert Donnell, Waxahachie; Orville Egbert, El Paso; John W. Embree, Dallas; Henry Folb, Dallas; G. B. Foscue, Waco; T. E. Fuller, Texarkana; Robert B. Giles, Dallas; Everett L. Goar, Houston; M. L. Graves, Galveston; Chester R. Haig, El Paso; H. D. Harlan, Beaumont; Chas. H. Harris, Fort Worth; D. C. Hoeflich, Houston; Wm. E. Howard, Dallas; V. R. Hurst, Longview; Sidney Israel, Houston; I. S. Kahn, San Antonio; R. W. Knox, Houston; L. W. Kuser, Gainesville; Paul V. Ledbetter, Houston; H. P. Ledford, Wichita Falls; I. L. McGlasson, San Antonio; John A. McIntosh, San Antonio; John O. McReynolds, Dallas; Jeffrey C. Michael, Houston; H. Leslie Moore, Dallas; Oscar L. Norsworthy, Houston; Minnie C. O'Brien, San Antonio; May Owen, Fort Worth; Edward Randall, Jr., Galveston; Clarence H. Reese, Waco; Lee Rice, San Antonio; A. C. Scott, Temple; A. C. Scott, Jr., Temple; W. A. Snodgrass, Hamilton; Martin E. Taber, Dallas; Holman Taylor, Fort Worth; W. F. Thomson, Beaumont.

The accommodations at Atlantic City were entirely satisfactory, of course, both in the matter of hotels and meeting places. Probably no other city in the country could be so well adapted to our purposes. Registration, scientific exhibits, commercial exhibits and one of the large section meeting halls, were located on the Steel Pier, the other section halls being located in the various hotels. The weather was cool and quite pleasing, to those of us from the South, at any rate. It was a bit too cold for bathing in the surf, but those of us who have enjoyed the beach at Galveston do not care much for the beach at Atlantic City anyway—and most of us have. An objectionable feature to some of us, was the "daylight saving plan" of measuring time. To begin with, those of us from this section of the country gained an hour traveling east, and then had to gain another hour because of this "daylight saving" business; and we did not need to save daylight. We have more of it, particularly in Texas, then we know what to do with. Any statement involving time and place had to be modified and explained as to the time factor, and at that even those who were accustomed to the monstrosity made mistakes. Personally, we watched the thing like a hawk watches a chicken, and at that arrived at the depot an hour too soon when we started home. It would not have been so bad, but our wife was with us and grew sarcastic concerning our mental astuteness.

The scientific program was of unusual interest. It is astonishing to consider the amount of first-hand, new and high class information included in the scientific program of one of the sessions of the A. M. A., and this particular session was, as we have said, exceptional in that respect. Of particular note was the discussion of the use of toxins in the treatment of scarlet fever, and the late work on the gall bladder and the liver. The new section on radiology in many respects was the surprise of the session. The attendance exceeded all expectations and interest was maintained throughout the rendition of its program. This is in line with our own experiences with the radiologists. Several Texas fellows appeared on the scientific program. Dr. A. C. Scott of Temple read a paper on "Glandular Block Dissections of Metastatic Cancer Done Exclusively with the Cautery: Report of One Hundred and Sixty Cases;" Dr. John O. McReynolds of Dallas, was a member of the executive committee of the section on ophthalmology; Dr. H. H. Stark of El Paso, lead in the discussion of a paper on tuberculosis affecting the optic chiasm; Dr. Everett L. Goar of Houston, read a paper on "Alternating Convergent Squint;" Dr. C. W. Barrier of Fort Worth, was joint author of a paper on "The Therapeutic Use of Novasurol in Ascites and Edema." Dr. Kenneth M. Lynch was a member of the executive committee on the section of pathology and physiology.

The social features of the session were, we have heard, quite pleasing and sufficient unto the occasion. The president's reception was particularly brilliant. The average delegate attending one of these sessions has little opportunity for playing. The Woman's Auxiliary came out strong, and created quite a bit of talk. This organization seems to have firmly established itself on a national basis. We are pleased with that fact and proud that Texas took such prominent part in the development.

We were honored by the presence of fraternal delegates from the British Medical Association and the Canadian Medical Association, in the persons of Dr. J. Basil Hall, president of the British Medical Association, and Dr. I. C. Routley, secretary of the Canadian Medical Association. These gentlemen were cordially received and appeared to be

very much interested in the workings of our organization. The custom of exchanging fraternal delegates with these two great organizations appears to be firmly established. We will have representatives at their next annual sessions.

Dr. Wendell C. Phillips of New York, was elected to the presidency. Dr. Phillips is well and favorably known to the profession in Texas. In fact, he is almost a Texan himself, having a daughter living in Houston, and a grandson born there. He has visited our association. He is an authority on diseases of the ear, nose and throat, medical and surgical; indeed, he is author of a text book on the subjects. For several years he was a member of the board of trustees of the A. M. A., and for a time, chairman of that most important body.

Dr. E. H. Cary of Dallas, was elected to the board of trustees, and Dallas was chosen as the place of meeting for next year. It will be recalled that our house of delegates by resolution, adopted at Austin, in May, joined the Dallas County Medical Society in inviting the American Medical Association to hold its next meeting in Dallas. Pursuant to instructions, the Texas delegates sought manfully to swing the next meeting to Texas, and were successful, thanks to many friends from many states. Beyond a doubt, this action is in recognition of the devotion of the profession of the Southwest to the American Medical Association, a recognition which has been necessarily deferred because no city in this section of the country has heretofore been able to promise the necessary facilities. The Dallas County Society has long contemplated extending this invitation, but has refrained until assurance was doubly sure that there would be ample hotel and other facilities. These things being proven to the satisfaction of the house of delegates of the American Medical Association, Dallas defeated, on the first ballot, the other two contendants, Atlanta, Georgia, and Louisville, Kentucky, combined, by a majority of one vote.

The trusteeship for Dr. Cary came as a surprise. Dr. Dowling, who has for 12 years been trustee from the Southwest, was retiring from the board, and the delegates from the South, in compliance with the expressed wishes of delegates from many states, selected Dr. Cary as their candidate for the place, and he was elected, in spite of the fact that Dallas was a contender for the next annual session. The Texas delegation made it clear that Texas was asking for the Annual Session and not the trusteeship; the latter honor and opportunity for service, came as a demand, as has been said, from the Southern States.

We are grateful to our friends in the house of delegates of the American Medical Association for the favors they have so recently shown us, and we promise to strive mightily to justify their confidence.

The Business Affairs of the A. M. A. are handled by its house of delegates, much as is the case with us. The proceedings of this body, including the annual reports of officers, councils and committees, were published in *The Journal of the American Medical Association* for May 30 and June 6. This account is both interesting and enlightening. It will pay any member to read it; and in no other way can one be informed on the affairs of organized medicine. One of the important recommendations made by the house of delegates was that delegates from the several constituent State associations make full and complete reports to their organizations, at the first opportunity. For some years now the JOURNAL has been trying to do this for our delegates. We hope we have been successful in covering at least the more important transactions. We have devoted much space to the effort.

Texas was represented by her full delegation, consisting of Drs. J. W. Burns, Cuero; A. C. Scott, Temple; Holman Taylor, Fort Worth, and E. H. Cary, Dallas. The membership of the house of delegates was at this session raised to 175, which will probably restore our lost delegate—provided we build up our membership to something like its normal proportion, during the current year.

The secretary, in his annual report, informed us that the membership of the Association April 1 of this year, was 90,646, which is 590 more than the year before. That represents the combined membership of constituent State associations. Fellowship at the same time reached the high mark of 56,121, which represents a gain of 2,058 over the previous year. While the membership of the State Medical Association of Texas was approximately 3,700, there were last year only 1,800 fellows of the A. M. A. in the State. This is hardly a fifty-fifty proposition. On a percentage basis, we are below the average; we prefer not to give exact figures. This is much to our discredit. We are hopeful that the Dallas meeting of the A. M. A. will greatly increase our fellowship percentage, which it doubtless will. It is understood, of course that "Fellows" are members who have paid $5.00 to the national body, for which they receive *The Journal of the A. M. A.* and the right to participate in the Annual Sessions of that great organization. Indiana, Michigan, Minnesota, and

West Virginia, have employed full time executive secretaries during the past year. The Michigan Association has been conducting clinical courses for the benefit of their members at centrally located places. This takes the place of our two courses of graduate instruction at Baylor and the University of Texas. The medical society of Porto Rico has been reorganized in keeping with the regular plan of organization of the A. M. A., which about completes our opportunities for expansion. *The Bulletin of the A. M. A.* is now going to 56,000 fellows. This publication does for the national body what the state journal does for the state organization. It offers an unrestricted opportunity for interchange of opinion and for discussion of strictly organization affairs, which might be out of place in *The Journal of the A. M. A.* It is an intensely interesting little publication.

The report of the board of trustees disclosed that the total assets of the association were at the beginning of this year, $1,520,-396.85. This amount includes property and equipment to the value of $841,205.67. *The Journal* made gross earnings of $1,098,-395.06, of which amount $238,533.11 was net. The total, strictly association expenses for the year, amounted to $127,681.32. There were other expenses to the extent of $118,-962.63. The total expenses, therefore, were $246,643.95. The gross association income was $267,689.90. The net association income, therefore, was $21,045.95, including net earnings of *The Journal.* This report sounds very business like, from our viewpoint. We are not an organization for profit, and so long as there is a safe margin of income over outgo, the balance may well be and has always been, spent for the good of the profession and of the public it serves.

Our special journals are beginning to gain. All made gains in subscriptions, and only two lost money. One new publication, *Archives of Otolaryngology,* made its appearance during the year. The Spanish edition of *The Journal* continues to lose money, but half of the loss last year, amounting to $12,902.05, has been absorbed by the Rockefeller Foundation. The good being accomplished by this publication is considerable. It tends to create a better feeling between the medical profession of the English and Spanish speaking peoples of the two continents. Argentina has recently acquired a Council of Pharmacy and Chemistry, no doubt as a result of the influence of this publication. *The Quarterly Cumulative Index* continues to extend its circulation. This publication is more useful than profitable. It lost considerable money during the year. The new A. M. A. Directory cost $53,565.86. There will doubtless be a loss on this edition, as there have been on other editions, but it is the unanimous opinion of those who have given the matter thought that this is one of the most useful enterprises of the Association. The data contained is important, and it is necessary that it be accurate if it is to be of value. If there is, or ever has been, accuracy in a publication of this sort, this one may be said to possess it. While *Hygeia* continues to grow in popularity, it continues to lose money. The net loss for the nine months of 1923 was $38,989.64. The net loss for the entire year of 1924 was $42,745.14. It would seem that we are gaining a little financially. However, this is not a financial proposition. It is intended that the lay public shall be reached with absolutely reliable discussions of health problems, and *Hygeia* delivers the goods. The total number of physicians subscribing for *Hygeia* on December 31 was 12,493. The total number of subscribers among the laity was 14,796. That makes a total of 27,289, and it will be noted that there are more laymen than physicians reading the publication. There are 343 physicians and 345 laymen in Texas subscribing for this magazine, a total of 688. There should, by this time, have been 6,088; and there would be if the State Medical Association and the Woman's Auxiliary, half did their duty in promoting its circulation.

The "Propaganda" department has been renamed the "Bureau of Investigation." That is better. People have long ago become suspicious of the word propaganda. This bureau is increasing its activities daily and is being daily made use of by an ever widening circle of laymen. The Council on Pharmacy and Chemistry continues to function at the same old stand and in the same old way. It is still howled at by the hit dog, and rarely ever hears the bark of welcome. The protection to ethical medicine and the health of the public these two departments vouchsafe is not realized, either by the profession or the public. The Bureau of Health and Public Instruction is coöperating actively with state organizations in reaching the public with helpful educational material. The Bureau of Legal Medicine and Legislation has been very busy, although it has not gone over the top with every problem assigned to it for solution. It could hardly do so, in view of the fact that narcotic, alcohol, income tax and like puzzles are included. The two latter departments will be made use of more extensively as time passes.

The Judicial Council reports an increased tendency on the part of constituent State Associations to solve their own ethical and

judicial problems. Requests for decisions along these lines are returned to State Associations when it is believed that they can be better solved by the state machinery, but where this seems not to be best, the Judicial Council has sought to help, whether or not bound to do so. The Council is now conducting extensive investigations of the problem of patents and perquisites. It will be remembered that it is now considered unprofessional to receive remuneration from patents for surgical instruments or medicine, or to accept rebates of any sort. It is believed by many thoughtful physicians that there are circumstances under which it is advisable that physicians not only control patents but even profit therefrom. How to provide for the meritorious cases and exclude the contrary variety is the problem. The Council reiterates its conviction that the benefits of scientific medicine could not be adequately delivered to the individual through the medium of a third party, for which reason it insisted that its criticisms of certain health extension organizations made at the Chicago meeting are emphatically adhered to. The House of Delegates, in executive session and following a debate which was noted for its frankness and its emphasis, warmly supported the Council in its stand on this question.

The problem of medical education is still very much alive. President Pusey's constructive assault on the established order last year has jolted us considerably in this respect. Therefore, the Council on Medical Education and Hospitals was very explicit in its recent report, and has evidently given the matter much study. This was, perhaps, the most intelligible and interesting report the Council has issued in some time. It seems that the high entrance requirements of medical colleges are not preventing the enrollment of students of medicine. There has been a steady increase, of about 1,000 students per year, since 1919. In 1925, the enrollment was approximately 18,368. Notwithstanding the limitation of enrollment practiced by practically all of the colleges, room has been found for those who are really qualified to study medicine. The idea that applicants have been turned away has arisen very largely from duplication of application. In other words, knowing that there is a limitation on enrollment, the prospective student seeks enrollment in several institutions, and is eventually enrolled, of course, in only one of them. As a matter of fact, while the enrollment is 18,368 at the present time, there are exactly 1,355 vacancies. The present supply of physicians in the United States is held to be adequate, notwithstanding allegations to the contrary. The automobile, good roads and general concentration of people in communities, is responsible for the fact that many communities do not have an adequate supply on the ground, which is not to say that medical services in all such cases is insufficient.

The proposal to shorten the time that must be spent in school by a medical student, the Council thinks, may be met by the present practice of allowing qualified students to skip one or two years in grammar school, and by the development of the so-called senior high school and junior colleges. Thus a six year elementary course and a six year secondary school course is provided, which it is believed will take the place of the high school plus two year college course. This, of course, in connection with the improvements of the medical curriculum, wherein duplicate studies are eliminated, and essential studies concentrated on, and perhaps inauguration of the "four quarter" system of instruction. Concerning the problem of medical curriculum, the Council had the following to say:

"It was the great improvements, whereby more complete and satisfactory courses of instruction were being offered by medical schools, that created the later problem regarding the medical curriculum. Formerly, the importance of many subjects now included in the medical curriculum had not been recognized; but, as the value of such instruction became apparent, they were added to the curriculum. The result eventually was a badly crowded curriculum. Measures for readjustment and the proper correlation of courses are already in process, not only to eliminate duplications of courses, but also, if possible, to enable the student to get a satisfactory understanding of the essential facts in less time. This problem has not been unseen or ignored since the revision of the medical curriculum has been the main topic of discussion in conferences on medical education for the last four or five years. The fact that the curriculum needs revision, however, is a matter for congratulation, since between 1900 and 1910 there was in the majority of schools no curriculum to revise. A special commission was created in 1923, which is making a careful study of this problem."

The subject of graduate instruction is being handled vigorously. The Council has issued a list of approved graduate schools, and *The Journal of the A. M. A.* will not accept advertising from graduate schools that do not appear on this list. The Council announces that it does not desire to inhibit graduate instruction, but does object to short cuts into specialization, and to the purchase of ornate diplomas by physicians under the guise of postgraduate courses. The Council will approve any institution that offers an honest course in an honest way, not subject to easy abuse. A report will soon be made on clinical laboratories, a subject which was

passed to the Council for investigation two years ago. The subject of nurse education is being studied and an extensive survey will be made in connection with other organizations interested in the same problem. The matter of ethical standards in hospital publicity is also being studied, as directed by the House of Delegates.

The Scientific Assembly received quite a bit of attention. The Section on Radiology, which was this year represented by a portion of the program of the Section on Miscellaneous Topics, was finally established by amendment to the By-Laws. The Section on Stomatology was abolished, on recommendation of the Council on Scientific Assembly. The Council had advised that the dental subjects be assigned to the Section on Miscellaneous Topics, but after much discussion stomatology was added to the Section on General Surgery, and then changed to the Section on Laryngology, Otology and Rhinology. The demand for a Section on Physiotherapeutics was denied. A resolution providing that the Council on Scientific Assembly shall present to the House of Delegates three nominees for the office of President-Elect and two nominees for the office of Vice-President, and that these be the only nominees eligible for election, was promptly and almost unanimously voted down. The importance of hearing from the Scientific Assembly in regard to such matters was recognized, however, and suggestions which would tend to give the Scientific Assembly the privilege of making nominations without denying the House of Delegates the important privilege and prerogative of electing the officers of the Association on its own motion, were invited.

The proposal to deny a Fellow a place on a section program for a period of two years following his failure to keep an engagement with one of the sections without a good excuse, was rejected. It was also decided that it would not be wise to permit a Fellow to register in more than one section during an Annual Session, as had been proposed, because of the fact that by so doing, multiple voting would be permitted.

Resolutions were adopted calling upon the Federal Government to abolish the war tax feature of the Harrison Narcotic Act, and authorizing the deduction of traveling expenses in attending the meetings of medical societies and taking postgraduate work. We have been seeking to cure these sore spots for some time. Our own State Association has on two different occasions adopted strong resolutions in regard to these matters, and has endeavored to secure the removal of those discriminations, but to no avail. The ridiculous part of the whole situation is that the Federal Agency responsible for the continuation of these rulings, says that there is no demand that they be abolished. It seems that where there is a demand there is relief, much as where there is a will there is a way. It is a simple matter to create the demand.

Resolutions were adopted calling upon the telephone companies to establish a classified list of physicians and surgeons, to be known as "Physicians and Surgeons, M. D." This has been done in the Ohio Bell Telephone Company, and there would seem to be no reason why other companies should not follow suit. It will be recalled that our State Association House of Delegates advised that physicians in giving their title use the suffix "M. D." rather than the prefix "Dr." The people must know how to pick a licensed and qualified physician, at least to a better extent than it now knows. So important is this matter that the Executive Council of the State Medical Association is advising county societies to publish their membership rosters from time to time, for the information of the public.

The demand for an *ad interim* meeting of the House of Delegates was again denied. It has been long recognized that it is difficult to properly dispose of the business of the American Medical Association in the short time available during an Annual Session, and some way around has before been sought. A meeting between times hardly seems feasible, however, because of the expense and loss of time involved, with consequent difficulty of securing representation. It was held by many to be more feasible to allow an additional day at the time of the Annual Session, which may yet be done.

A resolution was adopted condemning the provision under the Volstead Act that physicians could not prescribe more than one pint of spirituous liquor to any patient in ten days.

Resolutions were unanimously adopted warmly criticising the World War Veteran Act of 1924, wherein "Veterans of any war, military occupation or military expedition since 1897, not dishonorably discharged without regard to the nature or origin of their disabilities" might secure free medical attention. It was readily agreed that the government should care for its wards, particularly those who are so because of service to their country in time of war. The objection was to the indiscriminate extension of medical service, regardless of the financial status of claimants therefor. It was pointed out that the law does not provide for groceries or clothing for these same individuals. Perhaps because of the passage of

such laws as this, the House of Delegates called upon the Trustees to establish an office in Washington, in charge of an accredited representative, for reference and general liaison purposes. This problem has been under consideration for many years, and such representation has, at least in one instance, been established. There are many physicians and laymen who do not want to see the American Medical Association thus definitely enter politics, on a par with the Anti-Saloon League, labor organizations and the like, which is not to say that these organizations are not properly so represented, but rather that they are different types of organizations.

Resolutions were adopted warmly endorsing "The American Association for Medical Progress, Inc.," formerly the "Society of Friends of Medical Progress, Inc."

The Board of Trustees were authorized to establish a council on "Non-Medicinal Agents." A reference committee recommended that the work of the Council on Pharmacy and Chemistry be extended to cover these agencies, with appropriate change in its title.

The following most interesting resolution, introduced by Dr. H. M. Brown of Wisconsin, pertaining to "Evolution" and "Fundamentalism," was unanimously adopted:

"*Whereas,* Legislatures in several states have enacted legislation relative to the teaching of scientific theories and facts in their educational institutions; and

"*Whereas,* legal procedure is now in process in the State of Tennessee to determine the right of the legislative body thus to inhibit the dissemination of scientific knowledge; and

"*Whereas,* a study of the development of mankind ethnologically, embryologically and anthropologically is fundamental to the proper comprehension of scientific medicine; therefore, be it

"*Resolved,* by the House of Delegates of the American Medical Association, that any restrictions on the proper study of scientific fact and theory in regularly established scientific institutions be considered inimical to the progress of science and to the public welfare."

The report of the Committee on Physical Standards for Drivers of Motor Vehicles, of the Section on Ophthalmology, was endorsed. This report is the result of an investigation that has been in progress for some time, and covers an important subject.

The Council on Medical Education and Hospitals was requested to grade and classify children's hospitals on the basis of the general experience offered internes, that such hospitals may be considered suitable places for interne training. These hospitals have heretofore been classified as special hospitals, and did not qualify an interne for the requirements of the hospital year. It is believed that many of these hospitals are capable of giving a well rounded course of medical and surgical training.

The Council on Medical Education and Hospitals was increased from 5 to 7 members, and the Trustees requested to allow an additional grant of $15,000, in order that certain extensions of its work might be made.

Notice of a proposed amendment to the Constitution intending to allow recognition to lay secretaries of State Associations, that they might have some standing in the American Medical Association meetings, was given. It is not clear just what recognition can be extended these important factors in our organization, or what standing they would desire. After all, it is the membership of a state organization that the American Medical Association must consider, and not the official family thereof. It is hardly probable that any more *ex-officio* members of the House of Delegates will be created.

It was proposed that reports of officers, council and standing committees, and all resolutions dealing with questions of policy, be filed with the Secretary of the Association 60 days in advance of the Annual Session, published in the *A. M. A. Bulletin* and mailed to each delegate 30 days before the Annual Session at which such resolutions or reports are to be considered. There seemed to be likelihood of complications in this plan, and the whole subject was referred to the Board of Trustees.

Resolutions extending to the medical officers of the Veterans Bureau the same recognition in the matter of membership, fellowship and the like, allowed officers of the Army, Navy and Public Health Service, was referred to the Judicial Council for report. It seems that the Veterans Bureau now acts independently of the United States Public Health Service, which makes the difference.

Our 1925 Post-Graduate Courses were given at the Baylor College of Medicine in Dallas, and at the Medical Department of the University of Texas, at Galveston, in accordance with the schedules which appeared in the May JOURNAL. The Baylor College of Medicine postgraduate clinics were held June 1 to 13, both dates inclusive, while those given by the Medical Department of the University of Texas extended from June 8 to 20. The attendance on the University of Texas summer course was slightly smaller than that of last year, while the records from Baylor show a gain of five members over the preceding year. The reports from both institutions are very encouraging. These post-

graduate courses are past the experimental stage and are now looked forward to each year by the practitioner desiring to refresh his memory on clinical diagnosis, and to learn the newer methods of diagnosis and treatment. There is no such thing as standing still in the practice of medicine; the practitioner must either advance or retrograde. By attending medical society meetings, local, state and national, he may, after a fashion, keep abreast of the constant progress of medical science, especially so if he does not neglect the reading of good professional journals and the works of good authors. The attendance on postgraduate clinics is another important means of attaining this desideratum. Concerning this year's clinics, Dean Keiller, of the University of Texas, writes:

"The men this year (as hitherto) have been very appreciative of the courses given them, and on our part we are yearly getting to know better the kind of work that they need most.

"The small classes in clinical diagnosis have been particularly popular, and this feature will be emphasized in future clinics. Increasing experience with these clinics seems to prove their usefulness to the profession and therefore to the public, and we shall do all we can to improve them from year to year. A morning in the clinics and an afternoon or evening in the waters of the Gulf, seem an ideal way of spending the doctor's much needed holiday."

The doctors who attended the 1924 clinics at Baylor, organized and elected officers, and at this year's meeting the organization was continued and perfected. A committee was appointed to draft suitable resolutions of appreciation to Baylor Medical College and to the State Medical Association of Texas, which resolutions follow:

Whereas, Baylor Medical College has, in response to the wish of the State Medical Association of Texas, arranged a series of clinics for such regular doctors as might wish to attend; and

Whereas, a large number of doctors from Texas and Oklahoma are in attendance upon such clinical course for 1925, which has proven to be very beneficial and satisfactory; and

Whereas, our reception has been most cordial, and every courtesy and kindness has been shown us, and Baylor has made every effort to supply our needs as to the arrangement of the course; and

Whereas, Dallas, by virtue of its location, splendid medical talent, hospital facilities and abundance of clinical material, is a logical place to become a great medical center; therefore, be it

Resolved, that we believe that a greater effort should be made to enroll a larger number of doctors in these clinics, as it is our opinion that their value is not understood by a majority of those who have not attended them; and be it further

Resolved, that we extend a vote of thanks to them individually, and collectively for such courtesies; and be it further

Resolved, that we extend a vote of thanks and appreciation to the State Medical Association; and be it further

Resolved, that we believe the time has come when this talent and material should be organized and utilized in the most effective manner possible for the benefit of the doctors of Texas, and that we are of the opinion that this can be done by offering a postgraduate course annually at Baylor College, such course to last for a period of one month, and to be so arranged as to meet the growing demand of a relatively large number of doctors interested in special courses, such as pediatrics, gynecology, obstetrics, ophthalmology, urology, etc., according to the several needs of the class, and so arranged that as much as one-half of the entire time may be applied to such special course and the other half to a general course in which all will be interested, such general and special instruction being so alternated as to allow all doctors to obtain the benefit of both; and be it further

Resolved, that a copy of these resolutions be submitted to the Secretary of the State Association for publication in the TEXAS STATE JOURNAL OF MEDICINE, a copy sent to the Baylor Medical College and Hospital, and that a copy be spread on the minutes of this class organization.

E. W. BURNETT, M. D.,
D. C. HYDER, M. D.,
H. H. LEEMAN, M. D.,
Committee.

A picture of the 1925 Post-Graduate Class of the Baylor University Medical College, together with the names of those who composed the class, will be found in the Miscellaneous section of this number of the JOURNAL.

We wish to take this opportunity to express to the faculties of the Medical Department of the University of Texas, and of Baylor University, our continued appreciation of their devoted services, both to the profession and to the public whom they serve, and to again compliment them upon the splendid results obtained.

OHM MY!

A lady in the eastern part of the State recently had her blood examined by the E. R. A. method (that fearful and wonderful process by which on various occasions male guinea-pigs have been discovered to be suffering from uterine disturbances, and gentle albino rabbits have been found guilty of venereal diseases), and the result of this examination as reflected by the detailed report from the disciple of Abrams who made the examination is given below, verbatim. Fortunately for this patient, her common sense and better judgment prevailed over her credulity and instead of taking the inane advice of the Californian Oracle of Delphi, she consulted her family physician who made the diagnosis of pyelitis with gastroptosis. The impressive Abrams report alluded to follows:

"Radio examination of your blood shows you to have 37 ohms of diminished resistance; your Heart, B'ood vessels Nerves and Digestive tract are more or less in an irritated condition.

"You have 7 ohms of inherited diminished resistance, from both sides of the Family, and would judge from your blood that you had Cancer and Tuberculosis on both sides of your Family.

"You have 5 ohms of a Cancerous nature, located in your Stomach, Gall bladder, Womb and Kidneys; you also have an irritation at base of Brain which runs down your Spine, which gives you a very nervous condition.

"You have 6 ohms of Pelagra; you have had a very bad case of Lagrippe, which has left your system with 20 25th of an ohm of S'repto Toxemia, which is also giving your nerves a very bad condition.

"If you can come to Dallas and take treatment, I am of the opinion that from two to two and half months we can have you in a good condition; you will not be benefited by taking medicine, but can be by taking the Abrams treatment."

ORIGINAL ARTICLES

COMMENTS ON TUBERCULOSIS OF THE THE EYE.*

BY

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In recent years we have come to realize that tuberculosis of the eye is not as uncommon as was formerly believed. Some of the obscure chronic ocular inflammations that were formerly unclassified probably belonged to this group of cases. It is the chronic, slightly progressive types that are more difficult to diagnose, but, when recognized, offer greater prospects for recovery under the established semispecific therapeutic measures that are available.

The acute forms of tuberculosis of the eye are usually rapidly destructive in nature and are only slightly influenced by local and general treatment. If the lids are involved, the diagnosis should not be difficult because of the ease with which scrapings or sections are obtained for microscopic examination, or material secured for animal inoculation. If the globe is affected, the destruction is extensive and enucleation is usually necessary. Here, too, the microscope confirms the clinical diagnosis.

In the chronic type, the disease is insidious in its onset and progresses slowly. An early diagnosis is of the greatest importance because the earlier treatment is instituted, the better the prognosis will be. If the globe is involved, the diagnosis is difficult because it is usually impossible to obtain material for microscopic examination or animal inoculation, and conclusions must be drawn from clinical manifestations or diagnostic reactions. This is not as easy as one might suppose, because all chronic inflammations are characterized by the presence of small round cells and fibroblasts, and in most granulomas epithelioid cells are found in the lesion. Giant cells occur in diseases other than tuberculosis and are not characteristic of it alone. Caseation, however, is a characteristic of the disease, but does not occur until the lesions are well advanced. For this reason any chronic inflammation, and especially the infectious granulomas, may simulate the early stage of tuberculosis in its clinical appearance. For instance, the nodules of syphilitic iritis may resemble tubercles; here the Wassermann reaction usually makes the differential diagnosis comparatively easy. Iris nodules occasionally occur as the result of focal infection, and if the primary focus is obscure, the differential diagnosis becomes more difficult, and at times is impossible.

The difficulty in making an exact diagnosis of chronic tuberculosis is best exemplified by a few abbreviated case histories.

CASE REPORTS.

Case No. 1.—Mr. K., aged 40 years, a thin anaemic individual, consulted me for failure of vision. I had refracted his eyes three months previously and corrected the vision of both eyes to 20/15 with minus lenses; and at that time the iris and fundus of each eye were normal. Upon examination the vision of the right eye with the correction equaled 20/80, and of the left 20/40. There was moderate pain in the right eye, which was found to be due to a slight increase in tension. Four grayish white deposits were present on the posterior surface of the cornea. There was no circumcorneal injection. An oval circumscribed patch of yellowish exudate was seen occupying the lower nasal quadrant of the optic nerve. A small nodule of yellow color, and about the size of an ordinary pin head, occupied the pupillary zone of the left iris at five o'clock. The clinical picture appeared to be clearly one of tuberculosis. There was no evidence of tuberculosis in the chest or other portions of the body by general or *x*-ray examination. The Wassermann reaction was negative and all that could be found was an abscess around a broken root of a tooth that had remained in the jaw for many years and was discovered by *x*-ray examination. The iris and fundus lesions cleared rapidly after the removal of the root and draining of the abscess cavity. In this instance a chronic focus of inflammation in the eye, that was due to focal infection, could not be differentiated from tuberculosis by the clinical appearance.

Tuberculosis of the lids should offer no difficulty in diagnosis, if laboratory facilities are at hand. A diagnosis from clinical appearance alone is unreliable. This is illustrated by the following case:

Case No. 2.—A young man who is under observation at the present time, gave the following history: For the previous three months he had been treated for a hordeolum of the right upper lid, without improvement. When he was first seen by us there were irregular ulcers that extended deep into the tarsus of the inner surface of the upper lid. The larger ulcer occupied the greater portion of the temporal side of the lid and extended from the upper border of the tarsus to the lid margin. The second ulcer was smaller and occupied the conjunctival portion of the border of the lid for a distance of 3 m.m. in the nasal portion. The preauricular, cervical and submaxillary glands were enlarged on that side.

Scrapings from the surface of the ulcer were negative for tubercle bacilli. Material obtained from the ulcer were injected into a guinea pig, but did not produce tuberculosis in the animal. The Wassermann reaction of blood and spinal fluid was negative. After two weeks of treatment with potassium iodide as a provocative, the blood was doubtfully positive. The ulcers were thoroughly curetted and cauterized with concentrated lactic acid and at the same time mercury by inunction and potassium iodide in ascending doses were prescribed. Improvement was rapid and in a few weeks the ulcers had healed and the lymph glands became smaller.

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology of the State Medical Association of Texas, Austin, May 6, 1925.

In this man tuberculosis seemed to be the most likely cause of the trouble, but the later course of events led one to surmise that syphilis was the underlying factor.

Disseminated choroiditis may be due to a number of causes. Tuberculosis, without question, is one of them. Some observers classify the diffuse type as typical, and the small, clear-cut, round patches as characteristic of syphilis. This is purely a clinical classification, and further ophthalmoscopic microscopic investigation must be made during the active stage to prove the exact pathological nature of this condition. We have produced both forms experimentally in rabbits.[1]

Time does not permit further reports. The foregoing cases have been mentioned to emphasize the possibility of errors in diagnosis, because of the similarity in the pathology of chronic inflammatory conditions. One may be misled if conclusions are drawn from the clinical appearance alone, if these factors are not borne in mind. Tuberculous lesions, on the other hand, may resemble other pathological changes that occur in the eye and be mistaken for them. In my opinion this error is quite common. It is frequently difficult to make a differential diagnosis between conjunctival tuberculosis and Parinaud's conjunctivitis. Some writers hold that Parinaud's conjunctivitis is not a distinct entity, but is due to the tubercle bacillus. Verhoeff[2], on the other hand, has found a fungus, in tissues stained by his modified Gram's method, which he contends is the etiological factor in this form of conjunctival ulceration. His sections certainly contain a fungus and it is possible that the failure of other observers to demonstrate the organism was because of faulty staining methods.

Several years ago some tissue was given to me for examination from a case that was reported in the literature as Parinaud's conjunctivitis. Sections had been made from other small pieces of tissue by a general pathologist, and reported negative for tuberculosis. In my sections, epithelioid cells, giant cells of the Langhans type, and tubercle bacilli were found in the tissue and clearly demonstrated the etiology. A prolonged search of many sections must usually be made before bacilli can be found.

Tubercles of the bulbar conjunctiva are less frequent and rarely break down. They may be mistaken for luetic nodules, multiple phlyctenules, etc. Here microscopic examination of the involved tissue and animal inoculation should be resorted to.

Intraocular tuberculosis varies in its clinical manifestations with the portion of the eye that it affects. Chronic diffuse iritis, without nodules, is the most difficult form to classify. A diagnosis must be reached entirely by exclusion or by focal reactions to tuberculin. That this type occurs has been proven by the investigation of Stock[3] and others[4]. In the Research Department of the National Jewish Hospital for Consumptives, we succeeded in producing it repeatedly in our series of experiments on animals[1].

Tubercles in the eye may be mistaken for tumors.

Case No. 3.—An eye was sent to me with the clinical diagnosis of melanosarcoma. It had been removed from a woman 47 years of age. She had been conscious of slight pain and diminishing vision for seven months. Just before enucleation there was marked pericorneal injection. The pupil dilated irregularly. An opacity was noted in the cornea near the angle of the anterior chamber at five o'clock. The iris in this region seemed to be involved in the process. A second mass was located in the iris at the pupillary border on the nasal side. The Wassermann reaction was negative.

Microscopic examination, after sectioning the eye, revealed two nodules in the posterior layers of the cornea (Figure 1), one at the limbus corresponding to the five o'clock position, and the other slightly to the nasal side of the pupillary area. Both nodules protruded into the anterior chamber and showed a typical tuberculous picture, with the exception of caseation. In one of a series of specially stained sections, tubercle bacilli were found. A second nodule with a small area of caseation, was found in the pars plana of the ciliary body on the temporal side. Other interesting changes were present in the globe. After the microscopic diagnosis had been made the attending physician had the patient examined carefully for tuberculosis but no evidence could be found by either general or x-ray examination.

Fig. 1. Metastatic tubercle on the posterior surface of the cornea in a case of tuberculosis of the ciliary body.
Fig. 2. Tuberculosis of the choroid and retina in the macular region.

Case No. 4.—A woman, aged 30 years, consulted me because of pain in the right eye. The vision in the affected eye had been good until the year prior to the examination, when it had failed suddenly and remained practically blind for several months, after which the peripheral vision returned, but an absolute

1. Finnoff, William C.: Amer. Jour. of Oph., Feb., 1924, Vol. vii, No. 2; May, 1924, Vol. vii, No. 5. Arch. of Oph., Vol. liii, No. 2, 1924.
2. Verhoeff, F. H.: "Parinaud's Conjunctivitis, a Mycotic Disease Caused by Thread-like Microörganisms," Arch. of Augenh., Vol. lxxv, p. 207.
3. Stock: Sattler-Festschrift, Klin. M. f. Augenh., Supplement, 1903, p. 17; Klin. M. f. Augenh., 1903, Vol. xli, p. 228.
4. Friedrich and Nösske: Ziegler's Beiträge, 1899, p. 470.

central scotoma remained. The condition continued unchanged until five days before examination, when the vision of the right eye became blurred again. There was slight pain in the eye and moderate circumcorneal injection. A pyramidal deposit of punctate dots was present on the posterior surface of the cornea. The pupil was irregular in shape due to several small posterior synechia. The vitreous was moderately hazy. The macular region was occupied by a yellow nodule that was 1½ disc diameters across. It was elevated slightly and retinal vessels passed over its surface. Family history for tuberculosis, etc., was negative. The patient was in good physical condition and no evidence of tuberculosis could be found. The tonsils had been removed, but the root of upper cuspid tooth was surrounded by an apical abscess. A diagnosis of either a focal infection, a choroidal tumor with an associated uveitis, or tuberculosis of the eye, was made. The tooth was extracted after much persuasion, but no improvement occurred. In my absence from the city the patient passed from my supervision until three months later when a mature cataract was found. The pupillary border of the iris was bound to the lens capsule and the eye was soft, very painful and blind. Because of the pain that could not be relieved, and the possibility of a tumor, the eye was enucleated. Microscopic examination revealed the presence of a massive tubercle in the macula (Figure 2), that involved the choroid and retina. A moderate chronic cyclitis and iritis was present. In this case tuberculosis was thought of but was not considered the most likely cause of the ocular changes. Here, too, no clinical evidence of tuberculosis could be found by general clinical examination.

It is not uncommon to find chronic ocular tuberculosis in individuals who are apparently in splendid physical condition, and in whom

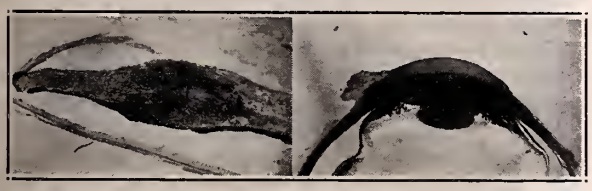

Fig. 3. Tuberculosis of the iris near the sphincter pupillae.
Fig. 4. Tuberculosis of the iris with extension into the cornea and sclera at the angle of the anterior chamber.

it is impossible to demonstrate tuberculosis elsewhere in the body by a general physical examination. Internists generally are not aware of this and are likely to question our diagnosis unless they are familiar with this fact.

In children the anterior segment is frequently the seat of tuberculosis. A uniform thickening of the iris is observed first. As the process continues the anterior chamber becomes shallow and is eventually obliterated by a mass, which might be mistaken for a neoplasm. (Figs. 3 and 4.) The angle of the anterior chamber is invaded early in the disease, the ligamentum pectinatum is soon destroyed, and the sclero-corneal tissue in the intercalary space becomes thinned and pushed forward. (Fig. 6.) This results in a peculiar nipple-like protrusion of the cornea. In extreme cases the sclero-corneal lamellae break down, the globe ruptures and all that remains is a mass of granulation tissue that protrudes from the sclera. Poyales[5] Byers and a number of others, have reported cases of this type. The comparative freedom from involvement of the posterior segment is striking in many of these cases.

The ciliary body is probably a very frequent site for early involvement. The close

Fig. 5. Tuberculosis of the iris with extension through the intercalary region.

proximity of the layer of blood vessels to the interior of the globe favors further dissemination in other portions of the eye. The cuticular layer of the ciliary body is not as resistant as the lamina vitrea of the choroid, and is quickly destroyed by the destructive agents that are present in the inflammatory process. Deposits on the posterior surface of the cornea are frequent. They have the appearance of drops of cold mutton fat and are made up of clumps of cells. In other types of cyclitis deposits are frequently noted on the posterior surface of the cornea, but they are usually smaller in size and not so white. In one of our cases the entire posterior

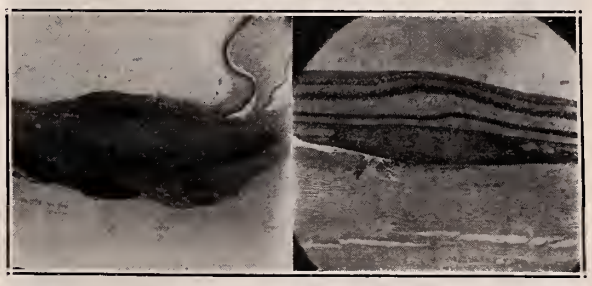

Fig. 6. Tuberculosis of pars plana of the ciliary body of the ora serrata.
Fig. 7. Tubercle of the choroid associated with tuberculous meningitis.

surface of the cornea was covered with very large and closely packed clumps that completely obscured the fundus reflex for several

5. Poyales, Franasco: "La Tuberculosis Ocular Infantil."

months. This is the result of cellular exudates and circulation of the aqueous.

In sections prepared for microscopic examination, we have repeatedly noticed extensions posteriorly by way of the perivascular lymph spaces of the retinal veins, which are filled with small round cells—retinal periphlebitis. In the late stage the whole ciliary body becomes involved, and in severe cases the sclera may be destroyed.

From microscopic evidence one is justified in contending that the ciliary body is frequently the first part of the eye involved and that secondary foci emanate from this structure, the organism being carried to the other locations by the aqueous humor and lymph.

Several types of tuberculosis occur in the choroid. The small circumscribed form (Figure 7.) is frequently associated with tuberculous meningitis or acute miliary tuberculosis. When studied with the ophthalmoscope the lesions are yellow. Massive tubercles—tuberculomas—occur and may be mistaken for tumors. In one of our cases yellow nodules were first observed under the retina, which increased in size and pushed the retina forward. Later it detached completely. The patient had active pulmonary tuberculosis and several weeks before death similar nodules appeared in the fellow eye and retinal detachment occurred.

In two other cases no evidence of tuberculosis could be found in the chest. In one a partial detachment of the retina occurred; in the other the retina remained in position but vision was lost because one of the masses occupied the entire macular region. Both cases reacted to diagnostic doses of tuberculin.

The diffuse type has been previously mentioned. During the early stage, large, slightly elevated, grayish areas of exudate are seen in the choroid through a hazy retina. In the terminal stages the picture is apt to be one of diffuse pigmentation and irregular scars that vary in size. The retina may become involved secondarily and entirely destroyed in any of the above mentioned forms. Tuberculosis of the retina, *per se*, is rare. It occurs as punctate or massive infiltrates in the retina, or as a perivasculitis of the retinal vessels. It is frequently associated with hemorrhages into the retina and often into the vitreous. The blood in the vitreous is frequently replaced by scar tissue—retinitis proliferans.

Tubercles of the optic nerve are rare. Because of its close proximity to the cerebrospinal fluid in the nerve sheaths, it is a grave condition and demands heroic treatment.

Time does not permit a detailed discussion of phlyctenules, tubercle of the orbit, lachrymal apparatus, skin of the lids, etc. It must suffice simply to mention them.

For many years it has been the attitude of a number of men to classify chronic inflammatory lesions of the eye as tuberculous, if any evidence of active tuberculosis was found in the lungs or other parts of the body. Some consider a rise in body temperature, or local hyperemia at the site of injection, after the subcutaneous administration of tuberculin as positive evidence, and at one time a positive Von Pirquet reaction was taken as sufficient. Fortunately, the latter conception has been discarded. A positive general or local reaction, *i. e.*, hyperemia, etc., at the site of injection, or rise of temperature, only, prove that the subject has been sensitized to tuberculin at some time in his life. A reaction of this kind proves nothing, but it is the focal reaction, at the site of the lesion that is of diagnostic value, and until proven to the contrary, must be accepted as the only reaction that positively proves the presence of ocular tuberculosis. Such a reaction is obtained in the majority of cases. However, it is possible to obtain a negative focal reaction in some cases with large doses. Positive focal reactions manifest themselves by hyperemia, increased exudation and infiltration, hemorrhage, diminution of visual acuity and, in some instances, pain.

The power of foci to react varies. In some individuals violent reactions occur after minute doses of tuberculin are administered, while in others a large dose results in only a slight change. Great harm may be done by the injudicious use of tuberculin, and for this reason one should give each case individual thought before employing such a potent agent. Some ophthalmologists inject tuberculin for diagnosis without first investigating the patient's general condition. This is a grave mistake because, if active or dormant tuberculosis is present, there is great danger of aggravating the general disease. Every case should be examined thoroughly by a competent internist before tuberculin is considered for either diagnostic or therapeutic purposes.

At the present time it is quite generally agreed that tuberculin, except in minute doses, does harm in pulmonary tuberculosis, but is of value in glandular and bone lesions. It is probable that the latter forms are due to the bovine bacillus and that chronic ocular tuberculosis is likewise frequently due to the same type of organism.

It is beyond the province of this paper to discuss dosage and the methods of administration. That is a chapter in itself. How-

ever, I should like to emphasize that Old Tuberculin (O. T.) is used for diagnostic and Bacillary Emulsion (B. E.) for therapeutic purposes.

ABSTRACT OF DISCUSSION.

Dr. Ray K. Daily, Houston: There is a prevalent and erroneous belief that ocular tuberculosis is rare; according to Novack, we see more ocular tuberculosis in latent tuberculosis of the lungs, which is probably exceedingly common, than in cases of severe lung tuberculosis. In the German clinics one sees a great deal more of ocular tuberculosis, than in our own clinics, because the Germans hold tuberculosis as the causative factor in those chronic ocular lesions which we are in the habit of attributing to a focal infection of the nose, teeth or sinuses. The fact that a scleritis or iritis clears up following the extraction of diseased teeth, or the enucleation of diseased tonsils, is in their judgment not sufficient evidence that these teeth or tonsils were responsible for the ocular lesion; nor is the fact that an ocular lesion clears up after therapeutic injections of tuberculin conclusive proof of a tuberculous lesion. There is still a great deal of work to be done in both fields.

Dr. Finnoff's statement that only a focal reaction proves the existence of ocular tuberculosis is absolutely correct; a local, constitutional, or even a focal reaction in the lungs does not prove ocular tuberculosis. And yet, in the majority of cases it is neither wise nor desirable to produce a focal reaction. The dosage of tuberculin required for a focal reaction in the eye is often dangerous to the eye and the lungs. I should think it unwise in a case of tuberculous scleritis, keratitis, or uveitis with vitreous opacities, to push diagnostic injections until a focal reaction is obtained; it is hardly justifiable to further weaken the already weakened envelope of the eye, or throw out another quantity of exudate to absolutely establish a diagnosis. In such a case, where other causative factors, such as syphilis, are eliminated, a constitutional reaction manifested by only a low rise in a carefully taken temperature chart, would justify therapeutic tuberculin injections, even if the diagnosis is not established beyond the shadow of a doubt. One must also keep in mind that sometimes the inflammatory increase of the focal reaction may last only a few hours, so that when we again see the case we notice only the improvement which follows the inflammatory increase; as, for instance, the sudden dilatation of a formerly rigid pupil, decrease of tension, or ciliary injection.

With the slit-lamp and corneal miscroscopy examination certain findings are fairly indicative of tuberculosis; a nodule at the border of the iris in an early case of iritis may be tuberculous, sympathetic ophthalmia or leprosy; the last two can be readily excluded by the history, so that the diagnosis of tuberculosis may be made almost with certainty. Nodules or star-shaped precipitates on the posterior surface of the cornea early in the disease, are fairly indicative of tuberculosis. Certain clinical symptoms are also suggestive of tuberculosis, such as a sclerotic nodule surrounded by an inflammatory area, with a negative Wassermann, or a unilateral choked disk, without headache.

Dr. J. O. McReynolds, Dallas: Dr. Finnoff has emphasized and illustrated the difficulties encountered in differentiating ocular tuberculosis from syphilitic lesions, ordinary focal infections, Parinaud's disease and other forms of chronic inflammations involving the eye. The recognition of these difficulties is a very important step in the patient and persistent investigation of obscure conditions, and will serve to prevent many disasters that could follow errors in diagnosis. We cannot be too careful in the employment of tuberculous reactions for diagnostic and therapeutic purposes. This is especially true in lesions affecting the macular region, because here the focal reactions can so easily destroy central vision. In some other parts of the eye the process may be exaggerated and the eye recover without permanent injury, but inflammatory and hemorrhagic lesions of the posterior pole of the globe are so likely to leave their scars even after the storm has passed. In my own experience, lesions of the cornea and uveal tract have constituted by far the great majority of the tuberculous manifestations of the eye, and the invasion has usually been in the anterior segment of the globe. I have been very much interested in the possible tuberculous origin of intraocular hemorrhages in young adults, with negative findings as to other conditions, and I should be glad to hear Dr. Finnoff's experience in such affections.

Dr. Finnoff (closing): In regard to the recurrent hemorrhages which Dr. McReynolds mentioned, I have had considerable experience with these cases, which were responsible for arousing my interest in ocular tuberculosis. I felt that all of these cases in young patients were due to tuberculosis and I feel still that the majority of them are. Von Hippel emphasized this point and regarded it as an entity. There had been about 150 cases reported. I have seen 30 cases of recurrent hemorrhages into the retina and vitreous in my own experience. I have been fortunate in having a number of cases sent to me by my colleagues. When these cases are associated with phlebitis they are due to tuberculosis and will give a reaction to tuberculin. In my scientific zeal I rather risked my reputation by pushing tuberculin, simply to satisfy myself that these cases were tuberculous. In this way I was justified in excluding ocular tuberculosis in some cases. We sometimes find these lesions only near the periphery and the reason we see them in the later stages is, that they have not produced symptoms earlier. Later, when vision is diminished, they will come for examination and you find these lesions. It is my belief that the ciliary body is the primary focus. The use of tuberculin for diagnostic purposes requires a great deal of care and one must individualize in his cases. If you are dealing with tubercules in the macular region it would be fatal to push tuberculin to the reaction point. You must here be contented with clinical diagnosis. In hemorrhages of the vitreous and retina, tuberculin used to obtain reaction is dangerous, for detachment of the retina may take place from shrinking of the exudates. Tuberculosis of the optic nerve should be treated energetically. Here you should obtain a severe reaction which is frequently followed by the throwing out of fibroblasts which terminates the disease. I am convinced that all cases of episcleritis are not due to tuberculosis. In tuberculosis of the iris I always attempt to produce a focal reaction and make a positive diagnosis, unless it is in the pupillary area and there is considerable of an exudate blocking the pupil. If the condition is permitted to go on, a secondary cataract invariably follows.

The slit lamp will undoubtedly help us. With an ordinary Coddington magnifier and with brilliant illumination, we can do as much as we can with the lower powers of the slit lamp.

Insulin-Mulford.—A brand of insulin (New and Nonofficial Remedies, 1925, p. 171). Insulin-Mulford is supplied in the following forms: Insulin-Mulford 10 units, 5 cc.; insulin-Mulford 20 units, 5 cc.; insulin-Mulford 40 units, 5 cc. H. K. Mulford Co., Philadelphia.—*Jour. A. M. A.*, June 20, 1925.

THE ANATOMICAL EXPLANATION OF SOME OF THE SPHENOPALATINE GANGLION PHENOMENA.*

BY

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The phenomena of the sphenopalatine ganglion may be divided into three groups: first, the sphenopalatine ganglion syndrome; second, anodynia from cocainizing the pathological ganglion; and, third, anodynia from cocainizing the normal ganglion.

The sphenopalatine ganglion syndrome is a spectacle-frame-shaped area of pain in or about the eye, extending backward over the temple, behind the ear, down the neck, over the shoulder and into the arm. It is rarely encountered in its entirety in one patient. Any of its variations may be found, but the customary guise is the spectacle-frame-shaped area of pain about the eye, over the temple and extending about four centimeters behind the ear. The headache has the character more of a migraine than of a neuritis, or of pain from cerebral pressure or tumor. This syndrome was first described by Sluder in 1908, and our knowledge of it has largely come from him. He found it associated with lesions of the sphenoidal or posterior ethmoidal sinuses and that the pain could be inhibited by cocainizing the sphenopalatine ganglion. Endocrine disturbances (Senseny) are occasionally united with the syndrome, and other toxic states will probably be found with it when searched for in the future.

In the second group, cocainization of the pathological nasal ganglion relieves pain in certain cases of torticollis, or intercostal neuralgia, of lumbago, of gastric pain with nausea and diarrhea, and of nodular headaches. These cases have been reported by Sluder, and to these may be added my case of mastoidalgia and torticollis. The third group demonstrates that anesthetization of the normal nasal ganglion in certain patients, relieves the pain from a carious lower molar, from glossodynia, from cricoidynia, from torticollis, from tuberculosis of the larynx, from herpes of the shoulder or pain in the ear from cancer of the larynx, or in syphilitic and malarial headaches. These cases have been reported by Sluder, Torrey, Lillie, Dean, Clerf, Gundrum, Davis and Bryan; and to this group may be added two cases of mine, one of torticollis and one of tuberculosis of the larynx.

The problem of the sphenopalatine ganglion phenomena includes not only the anatomy and physiology of the nervous mechanism, but also the selective action of drugs. A few patients obtained relief by the cocainization of the ganglion, but failed to get freedom from pain following the application of a saturated solution of cocain in epinephrin, or the injection of alcohol (Sluder). This result proves that in these patients there was a selective action of cocain for the tracts involved in the conduction of pain, and also indicates a similar action of the drug in all the others.

All pain is referred, in the sense that it is projected by a function of the brain to an affected region of the body. The localization of pain in lesions of the skin or extremities is quite accurate because the pressure (epicritic) perceptions have acted as a guide in training the patient to correctly orient the origin of the stimulus. The lack of capacity, in many instances, to locate accurately the source of pain in disease of the sinuses, organs or viscera, is probably due to this absence of opportunity for the development of the epicritic sense. Pain in the ear from dental caries and the spectacle-frame-shaped area of pain from the sphenopalatine ganglion are examples illustrating another type of referred pain known as reflected pain. Reflected pain has a planned distribution—however protean its manifestations may at times seem to be—for it is confined to the anatomical variations in the central connections of the involved peripheral nerves. Head states that "when a painful stimulus is applied to a part of low sensibility in close central connection with a part of much greater sensibility the pain produced is felt in the part of higher sensibility rather than in the part of lower sensibility to which the stimulus was actually applied." In short, reflected pain is a sensory reflex, and demonstrates clinically the connection of the affected neurons in the central nervous system.

Reflected pain from lesions of the sphenopalatine ganglion as a group is quite variable, but is definite enough in each individual case. The spectacle-frame-shaped area of pain indicates the central connections between pain conducting neurons of the sphenopalatine ganglion and the nerve cells with a similar function in other divisions of the trigeminal nerve as well as in branches of the second, third, fourth and fifth cervical nerves. The production of freedom from pain in distant regions by cocainizing the pathological or normal sphenopalatine ganglion, shows clinically the central connection between the pain conducting fibres of the nasal ganglion and neurons with like facilities from the

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glossopharyngeal, the vagus, and the second, third, fourth and fifth cervical nerves.

The central connection of the trigeminal with the second to the fifth cervical nerves is accomplished at two places. The first of these is made by its descending sensory root with the respective spinal segment. The terminal bifurcations in some of its axones have been demonstrated under the microscope to be in close unity with nerve fibres of the correlated cervical segment. The second location at which this central connection occurs, is just above the decussation of the pyramidal tract in the medulla oblongata, and at this level there is likewise connection between the pain conducting fibres of the fifth cranial, the glossopharyngeal and the vagus. These contacts are made in either the nucleus contained in the substantia gelatinosa or in the nucleus cuneatus. These nuclei are in the dorsal aspect of the medulla and serve as relay stations to the brain for sensory impulses from the head, face and cavities of the head, and from the arms, upper trunk and neck, respectively. Another companion of these, the nucleus gracilis, relays similar stimuli from the legs and lower trunk to the brain. A cross section of the medulla oblongata at this segment would expose these three nuclei upon its dorsum through which sensory impressions from the entire body are relayed to the brain. Any interference in the function of the nuclei would proportionately lessen the perception of pain by the brain.

The demonstration of the anatomical contacts of the involved nerve fibres in the central nervous system is sufficient to explain the sphenopalatine syndrome, but these mechanical relations alone do not account for the relief of pain following the cocainization of the ganglion in the second and third groups. Another factor, the selective action of cocain for the pain conducting neurons and the degeneration of these nerve cells following alcoholic injections must be brought into consideration. The application of nicotine to a sympathetic ganglion causes a paralysis of the preganglionic fibres to the sweat glands throughout its entire course. This is cited to illustrate the point that a locally acting drug may cause the complete anesthetization of a preganglionic axon. If cocain anesthetizes the pain conducting nerve fibres from the ganglion to the relay station in the medulla—the preganglionic fibres—it should be evidenced by the freedom from pain impulses originating in the nasal ganglion and from the painful stimuli conducted by the ninth and tenth cranial nerves. The converse of this proposition would be stated thus: If freedom from pain impulses originating in the nasal ganglion and from the painful stimuli conducted by the ninth and tenth cranial nerves results from the cocainization of the nasal ganglion, then the pain conducting fibres from the ganglion to the relay station in the medulla have been anesthetized in their entirety by the cocain. Since the relief of this pain subsequent to the cocainization of the sphenopalatine ganglion has been observed by many rhinologists, as well as by myself, it follows that the preganglionic fibres conducting pain have been anesthetized in their entirety. It is likewise evident that this anesthetization extends to the nucleus in such a manner that its functions as a relay are inhibited. In two cases of torticollis I applied a ten per cent. solution of cocain to the sphenopalatine ganglion and within two minutes each patient had no symptoms referable to "wry-neck." In a case of mastoidalgia the same technic was employed, with immediate relief. In a case of tuberculosis of the larynx with apparently normal nasal ganglia, the pain ceased within a short time after their cocainization and water could be swallowed in complete comfort—while previously the patient could drink only with considerable pain. In the latter case, there was no effect on the voice and no disturbance of the cough reflex. Any psychic influence or suggestion can be absolutely excluded. It seems reasonable to conclude, therefore, that cocain has a selective action on the preganglionic fibres of the nasal ganglion causing an inhibition of function not only in these nerve cells but also in the relay stations—the nucleus of the substantia gelatinosa and the nucleus cunateus. The necrosis of the preganglionic fibres after an injection of alcohol into the sphenopalatine ganglion follows evidently the same tracts, in most cases, with more or less permanent anesthetization.

ABSTRACT OF DISCUSSION.

Dr. J. H. Foster, Houston: I am not really capable of discussing this paper because it has to be read and studied to be able to appreciate it. In some respects, this is the best paper that has been read before this meeting, because it presents a new concept, which is distinctly original and somewhat at variance with the ideas held by other men, for instance, Sluder. The paper is well worth the careful study and consideration of every one but it is very difficult to grasp upon one reading.

Dr. J. J. Richardson, Fort Worth: We are fortunate in having this paper with its explanation of these points. Last winter we had mastoidalgia and otalgia complicating laryngeal coughs. During this great outbreak of "Flu" I had three patients in one day complaining of otalgia. With a satisfactory cough preparation the pain was entirely relieved. I do not know of any class of cases that can give more anxiety and worry than those patients complaining of indefinite pain in the eye and ear, and those patients complaining that they cannot breathe

and that the nose is obstructed, but, anatomically, having plenty of breathing space. At the present time, I am trying to relieve a patient, and her trouble can probably be explained by Dr. Cody's paper. According to our old teaching, we have been accustomed to think that cocainization of the ganglion will relieve pain in the nose. This paper shows very plainly that any diseased processes about the nose may be relieved by cocainization.

Dr. Cody (closing): I must confess that, at times, it seems to me that we are dealing with a relay station of pain. I believe that this is the first attempt that has been made to take these phenomena out of the realm of mysticism and place them on the basis of physiology. Probably we will all, including myself, have the privilege of revising our views. There is an enormous amount of clinical observation that will have to be correlated.

FETAL PROTEIN INTOXICATION—THE FUNDAMENTAL FACTOR IN VOMITING OF PREGNANCY.

A PRELIMINARY REPORT.*

BY

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The occurrence of nausea and vomiting in pregnancy is almost universal and yet they still remain unexplained. The commonly accepted classification into reflex, neurotic and toxemic types explains all degrees and severities of this symptom-complex and, likewise explains its frequency, since it occurs in from one-half to two-thirds of all pregnancies to a greater or lesser degree, but fails to establish satisfactory proof. It begins, as a rule, at about the sixth week and ordinarily disappears spontaneously during the fourth month, but rather frequently persists throughout pregnancy and not infrequently manifests itself as pernicious vomiting. Personally, I have never seen a case of vomiting of pregnancy which I had any reason to believe was due to any malposition of the uterus, erosion of the cervix, presence of a pelvic tumor, or other anatomical abnormality. In this series there is one case in whom I felt the vomiting might be neurotic in origin since it began as soon as the patient suspected she was pregnant. The prevalence among women of the idea that pregnancy means nausea and more or less vomiting certainly has a profound psychic influence and may explain some of the milder cases. Those thought to be toxemic in origin have never yet been explained and Williams[1] states that, "The mere severity of the vomiting gives no clue as to the variety with which one has to deal." He further states that, "In the reflex or neurotic types the patient gradually becomes more and more emaciated and finally dies of starvation," and, furthermore, that the neurotic type may progress into the toxemic type[2], all of which lays a well grounded suspicion that there may be a common cause for the symptom-complex in its varying degrees of severity.

Numerous observers have attempted to explain it on the basis of toxins from the placenta, the ovum, or foci of infection, and from faulty function of the corpus luteum, pituitary gland, suprarenal glands, kidneys, liver, etc. All of these observers have presented evidence to support their contentions, but all this evidence has been empirical and based chiefly on the results of treatment. Corpus luteum has, perhaps, been the most largely exploited product, although many investigators have contradicted the corpus luteum insufficiency theory with equally convincing evidence[3]. Likewise it has been shown that changes in the blood chemistry are entirely accounted for on the basis of starvation and dehydration rather than faulty renal or hepatic function[4,5].

Aside from the routine treatment which includes rest, diet restriction, isolation, administration of fluids and sedatives by rectum, the various methods of treatment in vogue are continued starvation, gastric lavage, intravenous normal saline or glucose, glucose combined with insulin, urotropin[6], sodium chloride and calcium chloride[7] intravenously, corpus luteum extract[8], ovarian extract, epinephrin, antuitrin, placental substance, duodenal tube feeding, diet restrictions of various kinds, removal of foci of infection[9], psychotherapy[10], veronal, luminal, effervescent sodium phosphate, horse serum, goat serum, autohemotherapy[11], fetal extractions[12], fetal blood serum[13], etc. The mere fact that these various methods of treatment are in vogue today is sufficient evidence that the underlying cause for the toxemia has not yet been found.

The Spanish obstetrician, Udaeta[14], believes that the toxemias of pregnancy, particularly

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1. Williams' Obstetrics: Second Edition, p. 511, D. Appleton & Co., New York.
2. C. Oldfield: Brit. Med. Jour., 1922, No. 1, p. 789 (Abs.).
3. E. L. King: Jour. A. M. A., Vol. lxxviii, p. 484, 1922.
4. F. Cook: Brit. Med. Jour., March 1, 1924, p. 372.
5. V. Harding and K. Drew: J. Obstet. and Gyn. Brit. Emp., Vol. xxx, p. 507, 1923.
6. A. Loschi: Ann. di Obstet. e Gynec., Milan, Vol. xlv, p. 213 (Abs.).
7. P. Castagna: Policlinico (Romo.), Vol. xxxi, p. 252, 1924 (Abs.).
8. Taylor and Taylor: Pa. Med. Jour., Vol. xxvi, p. 252, 1923.
9. J. E. Talbot: Amer. Jour. Obstet. and Gyn., No. 6, p. 709, 1923.
10. Brindeau and Lantuejoul: Paris Med., Vol. xiv, p. 587, 1924 (Abs.).
11. Laffont: Bull. Soc. d' Obstet. et de Gyn. de Paris, Vol. xv, p. 42, 1924 (Abs.).
12. Levy-Solal and Parof: Paris Med., Vol. xiii, p. 218, 1923 (Abs.).
13. C. L. Urriola: Paris Med., Vol. xiii, p. 544, 1923 (Abs.).
14. Udaeta: Jour. A. M. A., Letter, Vol. lxxxii, p. 902, 1924.

vomiting, are the result of intoxication caused by the products of gestation. These toxins, he explains, are due to the variation in the characteristic complex of the albumen molecule in various individuals and cites the reactions that follow blood transfusions to support his view. He assumes that the fetus acquires the father's characteristic albumen within the mother, which is responsible for the intoxication of pregnancy. Applying this principle in the treatment of hyperemesis gravidarum, he injected the mother with the husband's blood serum in five cases with astonishing results and prompt relief from symptoms.

TABLE I.

VOMITING OF PREGNANCY TREATED BY GROUP HEMOTHERAPY

Case No.	Name	Para	N. and V. Severity	N. and V. Onset	Period of Pregnancy When Treated	Blood Injections Source Type	Blood Injections No. of Injec.	Blood Injections Total Amt.	Types M.	Types F.	Types C.	Results
1	J.A.S.	5	4	4 weeks	7 months	F. II	4	16 c.c.	III	II	II	Phenom.
2	R.H.P.	1	2	6 weeks	3½ months	F. II	4	16 c.c.	IV	II	II	Prompt
3	A.B.B.	2	4	6 weeks	4 months	F. I	7	40 c.c.	IV	I	I	Prompt
4	L.W.P.	3	4	6 weeks	2½ months	F. III	11	52 c.c.	II	III	III	Prompt
5	A.J.B.	1	4	6 weeks	3 months	F. I	5	22 c.c.	IV	I	II	Satisfac. —Slow
6	C.P.H.	2	3	4 weeks	2 months	F. II	4	19 c.c.	IV	II	II	Prompt
7	P.L.H.	3	4	3 weeks	3 months	II and III	8	40 c.c.	IV	II	I	Poor
8	E.Y.	1	4	6 weeks	3½ months	II, III, IV	5	30 c.c.	I	III		Phenom.

1. All patients were treated from one to six months by the more common methods before using group hemotherapy.
2. Case 1 was treated with glucose and insulin because of the seriousness of her condition and the fact that group hemotherapy was an experiment.
3. Case 4 relapsed after two weeks and required five additional injections.
4. Case 7 was treated first by four injections of her husband's blood (type II), had a relapse after five days and then had four injections of combined types II and III; we predicted the child would be type I, but were unable to get any type I blood for treatment.
5. Case 8 had one intravenous of normal saline because of her state of extreme dehydration. This child is not yet born.

The idea occurred to me that if Udaeta's observations were correct, it would be possible to establish the cause of the vomiting of pregnancy based on accurate observations checked against the blood types occurring in mother, father and child. On April 4, 1924, a quintipara reported to us at the end of the seventh month of pregnancy. She was extremely toxic, having retained nothing by mouth for a period of ten days. The vomiting had begun at the fourth week of pregnancy and had continued uninterruptedly, regardless of efficient treatment. She had been referred for therapeutic abortion as the only means of saving her life. This patient's blood was matched against her husband's and a double crossed agglutination occurred. Accordingly, a subcutaneous injection of 1 c.c. of the husband's whole blood was given; 24 hours later, 5 c.c., and two additional injections of 5 c.c. each at 24-hour intervals. At the end of 48 hours the patient was feeling fine, had no nausea, and was eating and drinking as freely as she desired. I had used glucose intravenously to combat the extreme acidosis, but no further treatment was given and the symptoms did not recur. She gained five pounds during the first four days of treatment. This case showed the most phenomenal relief of symptoms of any case of vomiting of pregnancy I had ever seen, regardless of therapy. A perfectly healthy child was born two months later. The mother's blood was found to be in group III, the father's in group II, and the child's in group II.

TABLE II.

Analysis of 31 cases of vomiting of pregnancy treated from 1914 to 1924, showing the methods used.

Routine*	23
Corpus luteum	14
Normal saline in vein	11
Gastric lavage	9
D. and C.	9
Adrenalin	5
Glucose in the vein	4
Transfusion	4
Veronal	2
Antuitrin	1
Luminal	1
Duodenal tube	1
Abortion	1
Maternal deaths	3
Average number of methods per patient	3

*Routine treatment consists of gastric lavage on admission, rest in bed, fluids and bromides and chloral per rectum and restriction of diet to dry foods with liquids between meals, after a preliminary period of from 24 to 48 hours of starvation.

TABLE III.

Comparative summary of patients treated by group hemotherapy (Table I) and the more common methods (Table II).

	Table I.	Table II.
Number of patients treated in hospital	4	24
Number of patients treated at home	4	7
Average stay in hospital	8¾ days	13¾ days
Readmitted for continuation of treatment	1	4
Average time of onset of vomiting	4-6 weeks	4-6 weeks
Average period of pregnancy when treated	3½ months	3½ months
Number showing no record of type of treatment	0	2
Average number salines in vein of patients so treated	2-1000 each	4-1000 each
Maternal mortality	0	9.68 per cent
Fetal mortality	0	32.25 per cent

This case convinced me that fetal protein intoxication must have some relation as a causative factor to the vomiting of pregnancy. Since this time I have treated seven other cases with quite convincing results. (Table I.) One of these (Case No. 4)

had had a therapeutic abortion for vomiting in the preceding pregnancy and was saved only by blood transfusion, although she now has a perfectly healthy child, following the use of group hemotherapy as above outlined. The last case was a primipara who had retained practically nothing for a period of five weeks and was extremely toxic. She had five injections of combined group blood and was dismissed from the hospital at the end of one week. She has had no recurrence of symptoms. The slow results in Case No. 5 are explained on the ground that the father's blood used for immunizing the mother did not correspond to that of the fetus. The same explanation holds true in Case No. 7. The use of combined types in Case No. 8 precluded this failure. Investigation of the blood of all the children in these eight cases reveals that

TABLE IV.

SUMMARY OF ALL CASES TYPED TO DATE.

Case No.	Patient	Group	N. and V.
1	Father, W. W. H.	IV	
	Mother	IV	
	First pregnancy	II	3
	Second pregnancy*	II	4
2	Father, E. D.	IV	
	Mother	IV	
	First pregnancy	IV	0
	Second pregnancy*	III	3-4
3	Father, W. A.	IV	
	Mother	II	
	First pregnancy	IV	2
	Second pregnancy*	IV	2
	Third pregnancy*	I	3
4	Father, L. W. P.	III	
	Mother	II	
	First pregnancy	IV	1
	Second pregnancy*	D. and C.	4
	Third pregnancy**	III	4
5	Father, C. H. M.	IV	
	Mother	II	
	Fourth pregnancy*	IV	4
6	Father, R. C. F.	IV	
	Mother	III	
	First pregnancy	IV	2-3
	Second pregnancy*	II	3-4
7	Father, J. I. N.	IV	
	Mother	II	
	First pregnancy*	IV	2
8	Father, U. M. T.	III	
	Mother	II	
	First pregnancy*	III	2-4
9	Father, D. B.	II	
	Mother	II	
	First pregnancy	Died	0
	Second pregnancy	II	0
	Third pregnancy	II	0
	Fourth pregnancy	II	0
10	Father, R. H. P.	II	
	Mother	IV	
	First pregnancy**	II	2-3
11	Father, J. A. S.	II	
	Mother	III	
	First pregnancy	Abort.	4
	Second pregnancy	II	0
	Third pregnancy	II	0
	Fourth pregnancy	II	0
	Fifth pregnancy**	II	4
12	Father, A. B. B.	I	
	Mother	IV	
	First pregnancy	IV	0
	Second pregnancy**	I	4
13	Father, A. J. B.	I	
	Mother	IV	
	First pregnancy**	II	3
14	Father, T. E. S.	IV	
	Mother	IV	
	First pregnancy	IV	0
	Second pregnancy	II	4
	Third pregnancy	IV	0
15	Father, S. D. B.	?	
	Mother	IV	
	First pregnancy*	II	2
16	Father, R. C. K.	IV	
	Mother	IV	
	First pregnancy	I	4
17	Father, R. W. J.	II	
	Mother	II	
	First pregnancy*	II	1
18	Father, C. P. H.	II	
	Mother	IV	
	First pregnancy	II	2-3
	Second Pregnancy**	II	3
19	Father, J. A. P.	II	
	Mother	IV	
	First pregnancy*	II	4
20	Father, R. L. H.	II	
	Mother	IV	
	First pregnancy	II	2
	Second pregnancy	I	3
	Third pregnancy**	I	4
21	Father, S. S.	IV	
	Mother	IV	
	Third pregnancy	IV	0
22	Father, J. A.	II	
	Mother	II	
	First pregnancy	II	0
23	Father, W. S. H.	II	
	Mother	IV	
	First pregnancy	IV	0
24	Father, T. W. B.	IV	
	Mother	III	
	First pregnancy	III	0
25	Father, O. C. S.	IV	
	Mother	IV	
	First pregnancy	—	0
26	Father, A. B. F.	I	
	Mother	IV	
	First pregnancy	I	3
	Second pregnancy	—	0
27	Father, E. Y.	III	
	Mother	I	
	First pregnancy**	—	4
28	Father, C. T. L.	IV	
	Mother	II	
	Third pregnancy	IV	2
	Fourth pregnancy	I and I	2
	Fifth pregnancy	I	2
	Sixth pregnancy	III	1
	Seventh pregnancy	II	Slight
	Eighth pregnancy	IV	1
	Ninth pregnancy	III	1
	Tenth pregnancy	III	1
29	Father, J. H. H.	IV	
	Mother	III	
	First pregnancy	—	0
30	Father, A. S.	IV	
	Mother	III	
	First pregnancy	III	0
	Second pregnancy	IV	0
	Third Pregnancy	III	0
	Fourth pregnancy	III	0
	Fifth pregnancy	Dead	0
31	Father, A. T. F.	IV	
	Mother	II	
	First pregnancy	—	0
32	Father, F. W. M.	IV	
	Mother	I	
	First pregnancy	IV	2
	Second pregnancy	I	0

it is of different type to that of the respective mothers.

Continuing my investigation, I took up a concurrent series of cases, none of whom had suffered from nausea and vomiting, and found that in not a single case did the mother's and baby's blood groups differ. (Table IV.) I went still further and selected every available case from our vomiting group, since 1914, and found that in each pregnancy

*Indicates patient was treated by us at this pregnancy and is reported in Table II.

**Indicates patient was treated by group hemotherapy at this pregnancy and is reported in Table I.

treated for nausea and vomiting, the blood of the mother and child always differed in type. (Table IV.) When possible, I checked whole families and the same general rule has maintained, that when the blood groups of mother and child differ there is vomiting of greater or less degree; when they are alike there is no nausea or vomiting. I have tabulated 65 pregnancies and of these 40 (Table V) were accompanied by vomiting, and 25 (Table VI) were not.

In the vomiting series, the blood groups of mother and child differed in every case except two, both of which were in group II mothers with group II babies. One of these (Case No. 17) I suspected of being neurotic, while the other (Case No. 28—seventh pregnancy) did not come under my observation and the mother described her nausea as "very mild." In the "no vomiting," or normal series, the blood groups of mother and child agree in all except two. One (Case No. 30—second pregnancy) was a group III mother with a group IV child and, assuming that group IV is often non-toxic on the universal donor basis, this is not in disagreement with our conception of the underlying cause. The other (Case No. 11) was a group III mother in whom there was severe vomiting with the first pregnancy which aborted, but we assume this child belonged to group II because the father's blood is group II and also that of all the remaining children. Pregnancies two, three and four were not accompanied by vomiting, but with the fifth there was pernicious vomiting and the case is reported as the first of my group hemotherapy cases. This disagreement in pregnancies two, three and four cannot be explained except by the possibility that during the first pregnancy sufficient immunity to group II blood was established to carry the mother through the succeeding three. There was an interval of six years between the fourth and fifth pregnancies.

A study of the variations in blood groups in vomiting of pregnancy is rather convincing. Since Landsteiner's discovery of isohemagglutinins and the division of individuals by Jansky and Moss into four groups based on the presence of two agglutinable substances, A and B, in the cells, and two agglutinating substances, a and b, in the plasma, the dangers of blood transfusion have been known. The symptoms produced by injecting blood of one group into a person of another group are quite similar to those occurring in vomiting of pregnancy, although more acute and more severe. The degree of severity of these symptoms varies in accordance with the relation of the group of the recipient to that of the donor and has been observed to be most pronounced when one is group III and the other group II, or when the recipient is group IV and the donor any other group, and the least severe when the donor is group IV.

A study of Table I convinces one that the same principles hold in vomiting of pregnancy. There were two group I, four group II, and one group III children responsible for vomiting in five group IV, one group III and one group II mothers. Hemolysis is observed in about 20 per cent of all cases of agglutination in vitro and probably is the determining factor to be reckoned with in cases of more severe or so-called pernicious vomiting and, perhaps, the more serious toxemias of pregnancy.

Table IV shows the milder types of nausea and vomiting occurring in pregnancies where the child is group IV. In the cases where nausea with mild vomiting was present, and the mother and child grouped the same, I suspect that the protein complex of the fetus containing the unexpressed "recessive" character from the father, may be responsible for it—the heterozygous principle[15]. Or it is explicable on the basis of additional blood groups within the old established groups[16]. The occurrence of identical pure groups in mother and child should theoretically cause no nausea or vomiting and a survey of Table VI furnishes convincing data to this effect.

MOTHERS	CHILDREN I	II	III	IV	Unborn	Dead
I				1	1	
II	3	3	5	7		1
III		2		1		1
IV	5	10	1			

MOTHERS	CHILDREN I	II	III	IV	Unborn	Dead
I	1					
II		4			1	1
III		3	4	1	1	1
IV				6	2	

Table V. Group combinations in all recorded cases of vomiting, including twenty not seen by us at the time. (Taken from Table IV.)

Table VI. Group combinations in all recorded cases of non-vomiting. (Taken from Table IV.)

All observers agree that the hereditary transmission of blood groups follows closely the mendelian formula for a dyhybrid mating. At the present time I am not concerned with the controversy between Buchanan[15] and Ottenberg[17] as to the exact interpretation of the occurrence of the various blood groups in the offspring of matings involving different heterozygous groups, although I am convinced that Buchanan's view, that identical blood groups mated in the heterozygous state will give rise to groups resembling the

15. J. A. Buchanan: Jour A. M. A., Vol. lxxviii, p. 89, and Vol. lxxix, p. 180, 1922.
16. Huck, Guthrie and Pessel: Bull. J. Hopkins Hosp., 35: 23, 33, 81-126, 1924.
17. R. Ottenberg: Jour. A. M. A., Vol. lxxviii, p. 873, and Vol. lxxix, p. 2137, 1922.

grandparents, is eminently correct. Family number 28, in Table IV, is a splendid example of this principle. At the present time, we are interested particularly in the fact that a mother will give birth to a child of a different group and that if this occurs symptoms of nausea and vomiting appear.

The nausea and vomiting nearly always begin between the fourth and sixth weeks of pregnancy and (in support of the present idea that variation in blood groups is responsible for these symptoms) the circulation of the fetus with definite blood formation certainly begins about the same period of fetal life. The method of entrance of the fetal toxins or protein elements into the maternal circulation may be explained in at least two ways. It is well known that morphine and other drugs and a few diseases, such as small pox and syphilis, are transmitted from mother to fetus through the placenta. It should be equally possible for fetal toxins to be transmitted to the mother, but the most probable occurrence is the actual escape of fetal blood into the maternal circulation. It may be demonstrated that the chorionic villi projecting free into the venous spaces of the placenta, may become dislodged or broken off, permitting either a continuous or an intermittent escape of fetal blood into the mother's circulation. The obvious fact that the greater number of cases cease vomiting during the fourth month may be explained on the basis of a self-established immunity. Artificial immunity, as established in our series of cases, is accomplished by substituting blood groups from an extraneous source which would correspond to that of the fetus.

The question as to whether or not the method of treatment establishes immunity or whether it is a process of desensitization is a matter for subsequent investigation to establish. Of all methods of treatment that have been used by the writer, the present method of group hemotherapy has given the most phenomenal relief from symptoms in the shortest period of time that he has ever seen. It is hoped that various clinicians and obstetricians throughout the country will continue these observations with an idea of proving or disproving its worth. Such symptons as headache, dizziness, fainting, paresthesias, muscular cramps, albuminuria, biluria, etc., can easily be accounted for by the conflicting blood groups of mother and child, which likewise explains many of the other complications of pregnancy. The jaundice so frequently seen is certainly hemolytic in origin. Inexplicable anemia[18], often observed, is doubtless due to the destructive action of the fetal blood on the mother's. The observation of Perez and Leon[19] of a mother aborting at two and one-half months at the height of grave nausea and vomiting, but who recovered and, without further nausea, gave birth to a healthy normal child six and one-half months later, is explainable on the ground that the fetus which aborted was of a different blood group, while that carried to term without further nausea was of the same group as the mother. Pathological changes such as central necrosis in the liver lobule and degeneration of the renal tubules, are almost identical in hemolytic reactions following transfusion. Furthermore, Berkley, Doss and Walker[20] have found evidence of hemolysis, as manifested in a disturbed pigmentary function of the liver. It is more logical to look upon these findings as the result of some toxic condition rather than the cause. Just what the status of eclampsia, acute yellow atrophy and nephritis of pregnancy will prove to be is of great interest. The work of Gruhzit[21] should receive recognition and stimulate further investigation.

If the present conception of the factors underlying the vomiting of pregnancy prove to be correct, it is probable that group hemotherapy in combination with accurate vomiting management in the prolonged, severe cases can be established on a rational foundation. The technic I have employed is to withdraw 30 c.c. of the husband's blood into 10 c.c. of 10 per cent. sodium citrate and keep it at icebox temperature for preservation. For immunization or desensitization I have given injections of this citrated whole blood at daily intervals beginning with 2 c.c. and increasing 2 c.c. each day up to 10 c.c. at the fifth and last injection. Subsequent injections in two cases were necessary. It has been my observation that the most satisfactory results are obtained by intramuscular rather than subcutaneous injections. It is altogether probable that the intravenous route might yield better results, as reported by Baltodano.[22]*. It is my judgment that in many of the less severe early cases group hemotherapy alone will be sufficient to check the vomiting. In cases that have become toxic through con-

18. Schneider: Monatschr. f. Geburtsh. u. Gynak. (Berlin), Vol. lxv, p. 321.

19. Perez and Leon: Revista de Med. y. Chir., Havana, Vol. xxix, p. 287, 1924.

20. Berkley, Dodds and Walker: J. Obst. and Gyn. Brit. Emp., Vol. xxxi, p. 20, 1924.

21. O. M. Gruhzit: Amer. J. Obst. and Gyn., Vol. v, p. 400, 1923.

22. F. Baltodano: Jour. A. M. A., Cor., Vol. lxxxiii, p. 632, 1924.

*Since completing this paper I have treated one case by intravenous injection of 1 c.c. of pooled whole blood. There was reaction with chill, severe general aching, muscular cramps, temporary increase of nausea and temperature to 101.8° F. Relief of nausea was complete after two injections at forty-eight hour intervals.

tinued vomiting and dehydration, intravenous normal saline or glucose, with or without insulin, should be employed if the patient's condition is not satisfactory. Caution should likewise be employed in putting the patient back upon food as overeating may bring about a recurrence of the vomiting.

The selection of the blood type to be used in immunizing the mother is important. In the majority of cases the father's blood will probably suffice and by using the prediction table of Gichner[23] one might choose more accurately the type of blood most likely to prove correct. It is my opinion, however, that this prediction table is not altogether reliable because of the provision in the Mendelian Law that from "impure dominants" one-fourth of the offspring will be pure "recessives," and certainly the great majority of individuals are "impure dominants" because of the intermarriage of various groups throughout the life history of man. The data presented by Buchanan is, therefore, to be considered more accurate. In any case of doubt, the pooling of 15 c.c. of blood from each of the remaining three groups is recommended for immunizing the mother as was done in our Case Number 8.

ABSTRACT OF DISCUSSION.

Dr. Horn (closing): The primary idea of this investigation was to establish, if possible, some rational explanation of vomiting of pregnancy. The evidence, from the data presented, is quite convincing, although not by any means conclusive. Whether or not a satisfactory method of therapy for these cases can be evolved on the basis of blood group immunization or desensitization remains for further investigation to determine.

THE USE OF ACIDIFIED COW'S MILK IN THE ARTIFICIAL FEEDING OF INFANTS.*

BY

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Any method of successful artificial feeding of infants is based upon certain fundamental physiological and chemical phenomena learned by clinical experience, or determined by research in the laboratory. To intelligently employ these methods, a knowledge of infant nutrition is necessary.

Compared with the adult, the infant is growing more rapidly; its metabolic processes are more active and its relative food requirement is greater, but certain functions of the digestive organs are not well developed. For these reasons, the margin of safety between the amount of food required, and that which can be digested, is less, and any mishap to digestion is therefore attended by more serious consequences.

If the infant does not assimilate enough food to satisfy the needs for nutrition, there is a relative starvation. During starvation, as soon as the reserve food store is exhausted the body tissues are consumed and the infant does not gain or shows a decline in weight. In the presence of severe malnutrition there is an impoverishment of the organs of digestion to such an extent that enough food cannot be assimilated to sustain life.

It has been found that the normal young infant at complete rest requires sixty calories per kilo of body weight, or twenty-seven calories per pound during twenty-four hours. This quota is termed the "basal resting metabolism." Five per cent of the food consumed, or five calories of every one hundred ingested, may be recovered from the stool. It is estimated that twenty calories per kilo are used for activity, and that an additional fifteen calories are consumed for growth. The amount needed then for a young infant is one hundred calories per kilo of body weight.

The energy used depends upon the amount of active protoplasm. Since fat is inert, an overweight infant does not need the relative normal requirement; eighty calories per kilo may suffice. On the other hand, an infant that has very little fat, must have more calories. The relative increase of food varies inversely with the degree of malnutrition. For instance, in athrepsia an infant may require one hundred and eighty to two hundred calories per kilo.

The age must also be considered, as infants of the same age may vary by several kilos. This variation increases with the age of the child. The correct amount of food needed can be more nearly determined by multiplying the normal weight for the age of the given child by the desired number of calories per kilo.

There are certain anatomical peculiarities of the infant which must also be considered. The salivary glands do not play any appreciable part in digestion at birth. The stomach is more tubular and occupies a vertical position until the infant assumes the upright position. The liver is relatively larger than in the adult. The pancreas is small, but increases rapidly in size from birth with an attendant increase in function. The colon is about eighteen inches long; however, half of this length represents the sigmoid. Digestion occurs mainly in the small intestine and absorption in the small intestine and colon. There is very little absorption from the stomach.

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*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 5, 1925.

23. M. G. Gichner: Jour. A. M. A., Vol. lxxix, p. 2143, 1922.

The protein molecule is composed of chains of amino acids, present in varying amounts. Eighteen different amino acids have been identified. These are present in body and in food protein, but not in the same arrangement and amounts. Certain food proteins contain all the amino acids necessary for the body, while others are "deficient." Lactalbumin is an example of a "complete" protein. From this source, given a sufficient amount, an infant will obtain enough protein to thrive.

The protein molecule is reduced in the stomach by pepsin to peptones and albumose. These are then further reduced by erepsin and trypsin to amino acids, which are absorbed from the small intestine into the portal circulation and carried to the liver, where a large proportion is converted into urea. The remainder is carried to the tissues and synthesized into body protein. Amino acids cannot be built up in the body. They must not only be present in the ingested protein, but in sufficient amounts to supply the demand of the tissues. Cow's milk is deficient in certain amino acids, so a greater quantity must be given than is required by breast milk.

About 1.5 grams of protein per kilo is required for the average adult. This is the minimum amount which will sustain an infant for a prolonged period. The average baby receives from 2.5 to 3 grams from breast milk, but from 3 to 3.5 grams should be furnished by cow's milk.

Carbohydrate is furnished in the diet as starch and sugar. Both are polysaccharides. Sugar exists in milk as lactose. Other sugars used are forms of maltose, dextrin and saccharose. Dextri-maltose is usually made from hydrolized starch, and consists of varying mixtures of the two. Ordinary "Karo," introduced by Dr. Marriott, makes the most satisfactory carbohydrate for routine infant feeding. It consists of dextrin 55 per cent, maltose 30 per cent, and glucose 15 per cent.

Polysaccharides are all reduced to monosaccharides. Galactose, dextrose and levulose are absorbed from the small intestine and carried to the liver and tissues where they are converted into glycogen. An excess of carbohydrate greater than the infant can absorb is fermented by the bacteria of the intestine and often causes diarrhea. If more is absorbed than is needed for energy, it is stored as fat. For each gram of carbohydrate so used, three grams of water are utilized. An infant will not thrive for any length of time on less than three grams of carbohydrate per kilo of body weight in twenty-four hours. The optimum amount is about ten grams. If the carbohydrates are withdrawn from the diet, the fats are incompletely oxidized, and acetone bodies are produced in excess.

Fat exists in cow's milk in about the same relative percentage as in breast milk, but there are more oleates in breast milk, which partially explains the greater ease of absorption. Emulsification of fat begins in the stomach and is completed in the small intestine. Saponification is produced by the alkaline carbonates of the intestinal secretions, pancreatic juice and bile. In this process, glycerine is split off and the soaps and glycerine are then absorbed in the small intestine and pass into the portal circulation (40 per cent), and through the lacteals and thoracic duct (60 per cent). On passing through the intestinal epithelium the soaps are split into fatty acids, palmitic, stearic, and oleic, which recombine into neutral body fat. In the presence of an excess of calcium and magnesium, which occurs in a high protein and low carbohydrate diet, insoluble soaps are formed with these salts. This explains the advantage to be derived from the various protein mixtures given in diarrheal conditions.

Mineral salts are essential for life and growth. If they are completely withdrawn from the diet, a condition of acidosis develops. Milk contains a sufficient amount of all the minerals necessary for the infant, except iron. However, there is a reserve of iron stored in the body, so that it need not be added during the first four to six months. The total salt of cow's milk (7 per cent) is more than three times that of breast milk (.2 per cent), but the relative amounts are different. Cow's milk contains an excess of calcium and sodium, but is deficient in potassium. If more salt is given than is needed in the economy, only the amount required is absorbed, while the excess is passed off and may be a disturbing factor in digestion. The function of salt in the body is to maintain equilibrium. By osmotic pressure, it draws water to and from the tissues. Water functions as a carrier and diluent. The new born infant must have daily one-fifth of its body weight, expressed in ounces of water. At six months of age, one-eighth of the body weight is required. The water balance must be maintained. When there is excessive water loss, such as results from severe vomiting, purgation, or diarrhea, a dehydration of the tissues occurs, which may be rapidly fatal.

Four vitamines are known to occur, fat-soluble "A," water-soluble "B" and "C," and fat-soluble "D." If any one of these is deficient, the infant does not thrive. If "A"

is sufficiently reduced, xerophthalmia ensues, and if continued a sufficient length of time, death occurs. The absence of "B" produces beri-beri. "C" is antiscorbutic and "D" antirachitic. Vitamines must be supplied in the milk from food ingested by the mother. Her diet is usually varied enough to supply a sufficient amount the entire year, but cow's milk in the winter is often deficient in "D." Prolonged boiling of milk destroys "C." This can be supplied, however, by orange and tomato juice. Cod liver oil and butter fat are rich in "D."

The presence and amount of hydrochloric acid is the most important feature of gastric digestion in infancy. It activates the pepsin, controls the pyloric sphincter reflex, acts as a bactericidal and stimulates the production of secretin. At birth the hydrochloric acid is small in amount, and then progressively increases with age. It is diminished in the presence of acute infectious diseases, and severe grades of malnutrition. The concentration of acid in the stomach of normal breast fed infants averages pH 3.75 at the height of digestion.** Much lower acidity is attained when these infants are fed the same amount of undiluted cow's milk, the average concentration of acid being pH 5.3. This difference in acidity is attributed to the "buffer" action exerted by the excess of salt in cow's milk.[1] Clark states that salts and protein act as "buffers" which prevent any marked change in pH concentration with small additions of acids.[2] The pH concentration of cow's milk has been found by several observers to vary between 6.51 to 7.08.[3,4] It has a greater acid combining power than breast milk.[1] It does not approximate that of breast milk until it has been diluted to three times the volume. The lower acid combining power resulting from diluted cow's milk enables the hydrochloric acid of the infant's stomach to increase the acidity to the point at which pepsin is activated. This begins at pH 5 and reaches the optimum at pH 4.[4]

The opinion has been held by many that dilution of cow's milk makes the protein more digestible. There is no substantial evidence to support this view. It is true that the protein of cow's milk is not similar to that of breast milk. The relative proportion of casein is greater, but the important factor is the deficiency of certain of the amino acids (lysin). The increased volume of milk with the addition of the diluent taxes the capacity of the infant's stomach. The lessened food value and the high salt content are the main objections offered to cow's milk formulas as a routine food. The excess salt may influence the bacterial flora,[2] as the stools of infants fed on cow's milk are putrefactive, while those on breast milk are fermentative.

Christian Herter[5] believes that the diet of the host rather than chance invasion of bacteria determines the type of intestinal flora. Then, in the presence of the high salt content of cow's milk, the longer period of gastric digestion and the lower concentration of acid, invasion by pathogenic organisms is more apt to occur. Bacterial growth begins to be inhibited at pH 5. It is almost completed at pH 4.[6]

It has long been known that acidified cow's milk is one of the best artificial foods for difficult cases. Milk is usually acidified by lactic-acid-producing organisms, such as the bacillus acidophilus and bacillus bulgaricus. These reduce lactose to lactic acid and water, but when the concentration of the lactic acid reaches one-half of one per cent, bacterial growth ceases. So-called buttermilk is the prevalent milk of this type. It, however, contains only one-half of one per cent of fat, and due to this deficiency, the infant no longer gains in weight after three or four weeks. The explanation for this may be in the fact that the vitamine "A" is not supplied in a sufficient amount.

Whole milk acidified by lactic-acid-producing organisms may be used as a permanent diet. The culture used as a starter may be obtained from any of the reputable biological houses. This culture is added to milk which has been previously boiled and cooled to a tepid temperature, incubated for several hours until the milk curdles, and then put on ice. One tablespoonful of this milk culture is sufficient for acidifying one quart of sweet milk. Acidified whole milk will produce twenty calories per ounce, while ordinary buttermilk produces only ten. In the home, one who is not experienced with the technic of culturing milk, usually contaminates the culture in a short time. For this reason, acidified milk made in the above manner is not very practical. A better

**Then, pH is a symbol adopted by common consent to express the degree of hydrogen-ion concentration, or the degree of acidity of any solution.

1. Marriott, W. McK., and Davidson, T.: "Acidity of the Gastric Contents of Infants," Amer. Jour. Dis. Child., Vol. xxvi, p. 544, 1923.

2. Clark, W. M.: "The Reaction of Cow's Milk Modified for Infant Feeding," Jour. Med. Res., Vol. xxxi, p. 431, 1914.

3. Hess, A. F., and Matzner, M., Jr.: "The Value of Milk Acidified with Lemon Juice," Jour. A. M. A., Vol. lxxxii, p. 1604, May 17, 1924.

4. Faber, H. K., and Hadden, F.: "The Influence of the H-I Concentration and Buffer Value of Foods on Digestion, with Special Reference to Infants," Med. Clin. of N. A., Vol. vi, p. 245, Sept., 1922.

5. Herter, Christian, quoted by Clark, W. M.: Jour. Med. Res., Vol. xxxi, p. 431, 1924.

6. Shohl, A. T., and Jenney, J. H.: Jour. Urol., Vol. i, p. 211, April, 1917.

method has been suggested by Drs. Marriott and Davidson.[7] They add lactic acid to sterilized milk. The method given by them is quoted:

"A good grade of cow's milk is first sterilized by boiling for five minutes. The milk is then cooled and the scum removed. When thoroughly cool, lactic acid is dropped in slowly, while the milk is gently stirred. Lactic acid, U. S. P. (75 per cent to 85 per cent) is used, and the amount required is one dram (4 c.c.) to each pint (500 c.c.) of milk. This is added a drop at a time from a medicine dropper. A test tube drawn out to a fine point and graduated in drams or cubic centimeters also provides a satisfactory means of slowly adding a measured amount of acid. If the milk is warm when the acid is added, or if the acid is run in too rapidly, large clumps of curds will separate. When properly prepared a smooth, homogenous preparation should result. The concentration of acid is the same as that occurring in ordinary buttermilk. The taste and general physical properties are the same.

"The milk, prepared as described, keeps well, even if not placed in a refrigerator. Its acidity is such (pH 4) that bacterial growth is almost completely inhibited. We have inoculated such milk with pure cultures of B. coli and B. dysenteriae and have found no growth at the end of twenty-four hours.

Dilution is not usually necessary, as the amount an infant would ordinarily take at a feeding is not in excess of the digestive capacity. Only when it is desired to limit distinctly the amount of milk taken, without at the same time decreasing the total fluid intake, as for example, during warm weather, or in the case of infants convalescing from severe diarrhea, is dilution required. Practical experience has shown that it is neither necessary nor desirable to dilute the milk for the feeding of even newly born or premature infants.

"Carbohydrate should be added to lactic acid milk, as the amount of sugar present is insufficient for the needs of the average infant. The carbohydrate of choice is commercial corn syrup, such as is obtainable in grocery stores (Karo, etc.). This syrup contains a relatively high proportion of the difficultly fermentable dextrin, and can consequently be added to the lactic acid milk feedings in large amounts without danger of producing diarrhea. The amount of syrup usually added to the day's feedings is one ounce for infants up to two weeks of age, and from one and one-half to two ounces for the older infants.

"In preparing the formulas, the syrup is stirred into the lactic acid milk until thoroughly mixed. In cold weather the syrup may first be diluted with an equal volume of warm water, to facilitate mixing with the milk. The entire day's feedings are made up at one time, and preferably kept cool until used. No further sterilization is necessary."

Milk prepared in the above manner contains about twenty-six calories per ounce. The commercial lactic acid sold in Dallas usually has a strength of 75 per cent, but may vary from 65 to 85 per cent. The amount of salt in cow's milk is not constant. It has been my experience that often the milk is not curdled by the addition of lactic acid in the proportion of a teaspoonful to the pint. Then, again, the protein is precipitated out. In the first instance there is not enough acid and in the second an excess has been added. To correct this error, lactic acid 75 per cent is specified. The size of a teaspoon may vary as much as 30 per cent from the drachm which it is intended to contain, so a 60 minim graduate is used to measure the lactic acid. Three minims of 75 per cent lactic acid are prescribed for each ounce of milk ordered. Instead of adding the acid to the milk drop by drop, it is added to the required amount of syrup. If saccharine, or another sugar other than syrup is used, it is dissolved with the lactic acid in one or two ounces of water. This solution is stirred into the milk. By first diluting the acid, it can be added rather rapidly to the milk without forming large curds. The following directions given to the mother:

"Take of milk (certified) — ounces; lactic acid (75 per cent) — minims; Karo syrup (Blue Label) — ounces. This should make when prepared — ounces. If it does not, add sterile water enough to make this amount. Boil the milk for five minutes and cool quickly in cold water. Dissolve the acid in the syrup and stir this solution into the cold boiled milk. Do not add more syrup and acid solution than is needed to thoroughly curdle the milk. It is found that the end point is reached when all the solution is added in most every instance."

In the beginning acidified cow's milk was given to infants who were especially likely to contract dysentery, because of a contemplated trip, the place of residence, or other such circumstances. During the entire warm season last year, only one case of dysentery was personally seen in an infant fed lactic acid milk. The indications were that this particular infant was given other food.

Acidified cow's milk is now used by our firm, Perkins & Usry, as a routine diet for infants. It has been given to babies of all ages, from prematures to two year olds. Some of them have taken it for over a year. The amount of food given, the number of feedings per day and the intervals between feedings are essentially the same as given by Marriott. The cases fed include a small number of normal babies. The others were suffering from the usual variety of diseases and feeding disturbances peculiar to infancy. The average gain per week for a period of twelve weeks was 6.8 ounces for eighty-one babies under nine months of age. The average gain obtained by Marriott was 6.3 ounces per week; the difference is very small. The patients observed by him were attended in the hospital and clinic, while ours were seen

7. Marriott, W. McK., and Davidson, L. T.: "Acidified Whole Milk as a Routine Infant Food," Jour. A. M. A., Vol. lxxxi, p. 2007, Dec. 15, 1923.

in private practice, which may explain the difference.***

In malnourished children, when the feedings are first begun, the gain is often remarkably rapid. A set of twins seven days of age, weighing 5 pounds 14 ounces, and 5 pounds 1 ounce, gained 35½ ounces and 36½ ounces, respectively, in six days. The initial rapid gain continues until the weight is normal, and then assumes the usual rate. This is explained by the fact that the partially starved infant is able to assimilate the required amount of food. After the initial rapid increase, the infant no longer demands such large amounts of food. It is quiet and contented because the energy metabolism is diminished. This is not a loss of appetite, as it may at first seem.

A comparison of the caloric value of diluted cow's milk with that of lactic acid milk will explain why the infant often takes less of the latter. For instance, a formula containing whole milk 14 ounces, dextrimaltose four level tablespoonsful, and water 14 ounces, total 28 ounces, contains 400 calories, while acidified cow's milk made from 26 ounces of cow's milk, 2 ounces of "Karo," and 104 minims of lactic acid (75 per cent), total 28 ounces, affords 720 calories. So, in order to obtain an equivalent amount of food from the latter, the infant need not take more than two-thirds as much. In other words, it requires three ounces of the diluted milk formula given, to equal two ounces of acidified cow's milk. The normal infant, provided an adequate amount of acidified milk is given, will take variable amounts. At one feeding, only two ounces may be required, and at the next, four or five ounces may be consumed. In this respect, it is similar to breast feeding. Also the stools are one to five in number per day, smooth and yellow, approaching in character those of infants taking breast milk. There is a very noticeable absence of constipated stools so often seen when cow's milk is given, and there is no fetid odor present.

Severe diarrhea has not been encountered. In a number of instances, when the weather was warm, some of my patients had from seven to ten watery stools during a day and night. This may have been due to overfeeding and a deficiency of water, or to infection. The duration of these attacks was short, and they were relieved by using acidified skimmed milk and leaving out the sugar.

The development and appearance of these infants compare favorably with those to whom breast milk is given; they are firm, alert, active and content. The skin is pink and elastic, the hair glossy, the abdomen not enlarged, and the teeth are erupted at the usual time. They seem to be stronger and healthier babies than those given cow's milk dilutions, or any of the condensed or proprietary foods.

The use of acidified cow's milk has so simplified infant feeding that the doctor requires no special training to prescribe it nor the mother to prepare it. It is a safe food, and there is no danger of contamination with pathogenic organisms. It is an adequate food in that it meets all of the requirements of the young infant for maintenance and growth.

***The analysis of my series is not given here because it is included in another paper.

SUMMARY.

1. The nutritional requirements of the infant are reviewed briefly.

2. The features peculiar to the physiology of digestion during infancy are discussed, with particular attention to the inter-relation of the hydrochloric acid and the salt content of cow's milk.

3. Suggestions are made regarding the method of preparing acidified cow's milk.

4. The results obtained from feeding acidified cow's milk are mentioned and compared with those of cow's milk dilutions.

ABSTRACT OF DISCUSSION.

Dr. Roscoe Etter, Waco: I agree with the author that acidified milk is a step forward in infant feeding. I feed it to normal as well as to sick infants. Acidified milk is a safe infant food for three reasons: (1) It contains no bacteria; the milk may be inoculated with B. coli and no growth will result in twenty-four hours; (2) it is a better balanced food, having a higher fat content than is possible in other mixtures; this gives the infant better resistance to withstand disease; (3) acidified milk is more easily digested; this allows a larger caloric feeding to be utilized on less volume. This is of particular advantage with premature infants.

Dr. L. D. Hull, San Antonio: That acidified milk is an acceptable infant food cannot be questioned, but I do not feed it as a routine procedure. I find some babies who do not seem to be able to take the high fat content of the mixture. Other babies are noted who, after a few months on lactic acid milk, lose their appetite or refuse to take it. I change these patients to whole milk, particularly if they are past 10 months. I would suggest that the lactic acid milk be given according to the caloric requirements of the infant rather than according to the estimated stomach capacity. I agree with Dr. Perkins that lactic acid milk has a place in infant feeding, but the doctors present should not go away with the impression that it is a panacea for all the feeding disorders of infants.

Dr. H. Leslie Moore, Dallas: I like lactic acid milk because it is so simple to prepare. There are no complicated formulas to remember. The percentage is the same in all ages and sizes. The only difference is the volume. I would suggest to make the curd small that the milk be agitated with an ordinary egg beater.

Dr. J. P. Harris, Midlothian: What should be the procedure in case diarrhea results from the administration of lactic acid milk?

Dr. Ramsey Moore, Dallas: There are a few practical points to be considered in the giving of lactic acid milk, which if not followed will cause both the doctor and mother to be disappointed with it as an infant food. The strength of lactic acid in the average drug store varies from 75 to 85 per cent. For this reason, no specified amount of lactic acid can be ordered for all cases; the mother must be taught to add sufficient lactic acid to make the curd the proper consistency. I have observed that pure Holstein milk cannot be used satisfactorily in the lactic acid mixture, probably because the proteins are too heavy. The mother must be impressed with the importance of having the milk at the proper temperature during the mixing; it must be cold, otherwise it will be impossible to bring the curd to the proper flocculency. It is also well to warn the mother in advance that the lactic acid milk has a sour taste, as mothers have a habit of tasting their baby's milk, and if not forewarned, will consider the acidified milk unfit for the little fellow and refuse to give it to him. The mother must also be told to make the holes in the nipples a little larger than for ordinary cow's milk, in order to allow the flocculent curds to pass through. Anti-rachitic and anti-scorbutic vitamines must be included in the diet. Lastly, I would recommend that the infant be taken off the acidified milk when he attains the age of 9 months, and whole unacidified cow's milk given in its place, with the addition of other food.

Dr. Perkins (closing): While I give the acidified milk as a routine feeding, there are many abnormal feeding cases which must be given other kinds of food. Diarrhea occurring during the administration of acidified milk is usually due to over-feeding or an insufficient amount of water, or to infection. If diarrhea occurs, then the cream and sugar are removed until the diarrhea is cured.

MY EXPERIENCE WITH THE POTTER VERSION.*

BY

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On my discharge from the service in 1920, I availed myself of the opportunity to spend a month with Dr. Potter at Buffalo, New York. It had occurred to me that with twelve years of general work, the major portion of which had been devoted to obstetrics, I would be of an open mind, and perhaps capable of accepting or rejecting his methods in part or in toto. The month was an extremely pleasant one (and it takes a great deal to offset the weather in Buffalo in December) and also profitable, as it gave me a broader view of obstetrics and a more definite knowledge of some things, which were before then in the realm of uncertainties. I had to stand for my share of "kidding" like other men who have visited him, and without which I am sure Potter would long since have been dead. This was enjoyed rather than resented, and was all displaced by Potter himself—a man, devoted and sincere in his work, of good judgment, absolutely honest in his statements, keen, fearless, and a tireless worker.

I was with him for one month, and while I didn't see every case delivered, I took notes on sixty cases of version, and it was interesting to note how often new complications arose and how readily they were met. From this, it is quite likely that a day or so with Potter does not give one sufficient opportunity to observe his work, and while Potter's book is exceedingly instructive, one cannot believe that the best results are obtained in operations with a recollection of plates as a guide.

Between April, 1920, and November 11, 1924, I personally delivered in Houston 1,000 babies, and am now presenting for the first time my results, indicating the maternal mortality, fetal mortality and method of delivery, together with a brief analysis of the fetal mortality. The fetal mortality includes all cases from at or near seven months' gestation up to fourteen days after birth. It includes all cases where the writer actually made the delivery of the child, late consultations, and some cases at the Houston Municipal Hospital, where a fairly active maternity service is maintained, but where the resident makes the delivery unless the complication is an extremely formidable one. Could these two latter sources be eliminated, a much more favorable report would be possible. Nine of the fetal deaths were contributed by these two sources, and the cases were of such a nature that the results obtained were probably the only ones possible.

One thousand cases were delivered with one maternal death, .1 per cent. This patient had had diphtheria shortly before her pregnancy. Three hours after delivery, and shortly after taking a light diet tray, she expired suddenly. Death was probably due to the effect of her recent infection, the anesthetic, and acute indigestion.

Delivery was effected in the following ways: Normal, 301; low forceps, 177; high forceps, 17; breech extraction, 48; podalic version, 445; Caesarean section, 11; vaginal hysterotomy, 1. The number of fetal deaths was 43, a mortality of 4.3 per cent. The method of delivery in all cases, with death of child from, at or near the seventh month up to fourteen days after birth: Caesarean section, 1; breech extraction, 7; normal, 12; podalic version, 11; low forceps, 6; high forceps, 6. The fetal mortality by method of delivery was: Caesarean section, 9 per cent; breech extraction 14.5 per cent; normal, 4 per cent; podalic version, 2.4 per cent; low

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forceps, 3.4 per cent; high forceps, 35 per cent. Stated in other words and using 100 as a standard, the index of safety for the various methods of delivery would be: Caesarean section, 91; breech extraction, 85.5; normal, 96; podalic version, 97.6; low forceps, 96.6; high forceps, 65.

Causes of fetal deaths: Premature, with no other known cause, 5; premature, with pre-eclampsia of mother, 4; premature with maldevelopment (one of twin's amniotic fluid escaped from the sac at end of fifth month); asphyxia, due to disproportion causing delay in delivery of child, with no injury, 7; asphyxia, with short cord around neck, 1; asphyxia, concealed prolapse of cord, 2; asphyxia, due to inability to deliver shoulder of eleven pound baby, 1; monsters, anencephalic, 2; macerated fetus, 7 (one due to knot in cord, one to stricture of cord; cause unknown, 5; in one case a gas bacillus had invaded the uterus); congenital cystic kidney, 1; blue baby, 1; hemophilia, 2; hemorrhage from placenta previa, 1, and cerebral compression, 8. Delivery of these last 8 cases was effected as follows: Breech extraction, 1; podalic version, 2; high forceps, 4; low forceps, persistent occiput posterior, 1.

There were sixteen cases of death where better obstetric judgment and more skill might have reduced the fetal mortality. I believe that my reluctance to do sections in cases of disproportion has been a mistake, and more effort has been devoted during the past two years to reducing these cases of disproportion by inducing labor after completion of eight full months.

There were no cases of puerperal septicemia. Data as to morbidity has not been compiled. There was only one case of alarming post partum hemorrhage, and that followed the extraction of a nine pound baby from a uterus that was completely upside down. The fundus containing the head was at the brim, and the cervix from which one foot protruded was in the right hypochondrium. The vagina had elongated to accommodate itself to this very unusual position of the uterus.

While the safety index was 97.6 in podalic version, and 96.6 in low forceps, and 96 in normal deliveries, indicating a greater safety in the two former over the latter, it would seem audacious to claim this to be true as a general proposition. I believe it was true in this series, because in the main most normal cases were assisted with Potter version or low forceps, whereas under the classification of normal deliveries, a policy of no examinations and no manipulation was followed in cases of premature death of fetus, premature labors because of toxemia of mother and cases where the baby was dead at or near term and the mother able to deliver herself. It was thought that such a course decreased the maternal morbidity. The safety index in the breech cases and in high forceps cases is appallingly low. In the seven breech deaths, one was a maldeveloped twin that lived three days, one was premature with pre-eclampsia in the mother, and in four cases the babies were disproportionate and labor permitted to reach the point where section would have been hazardous even if the disproportion had been diagnosed before extraction was attempted.

No apologies will be offered for the high forceps deliveries; they were cases in which there seemed nothing else to do. A high forceps delivery, even where every possible precaution is observed, is a real ordeal, and the baby that survives it probably has some real mission to perform. More faith and competency in extraperitoneal sections would probably have saved some of these cases.

The principal reason for reporting this series of cases is to support the statement that my experience with the Potter version has been very satisfactory, and I regard it as a most valuable method of delivery when done on the proper cases, at the right time, and by one who has had the time, the patience and the inclination to become familiar with the various essentials of the technique. When it is ill-timed or performed in the presence of such contraindications as tetany of uterus, late cases with retraction of the uterus, and in cases of disproportion, whether from a large baby or an undersized pelvis, the results will be anything but good.

The fetal mortality stated in podalic version deliveries includes five versions in the nine consultation cases with dead babies, and in no case did the conditions call for a Potter version, but rather for a podalic version with the text-book indications. These are hardly chargeable to the Potter version, but rather than make two classifications they were tabulated under podalic versions.

Potter claims that by eliminating the second stage of labor, the pain, extreme fatigue and shock (which in some cases is a very definite thing), the fear of future labors is removed, the morbidity decreased, and the convalescence happier and shorter. Medical observation is difficult and often deceiving, as the human factor with the varying mentalities is far from constant, but I am convinced that this claim is justified in the majority of cases.

Potter claims that the maternal soft parts are better preserved by his method than by

normal deliveries. My series of versions is sufficiently large, and my records of final examinations of other cases great enough, that I can say unhesitatingly that he is right. Version is the only delivery through the natural passage made under deep surgical anesthesia. There is then complete muscle relaxation, and just what happens to the pelvic fascia with gentle and gradual manual dilatation I don't know. De Lee says it is torn and rent, and indicates that it is never of much account afterward. One is reluctant to disagree with so eminent an authority, but while there must be small separations in the fascia, evidently its framework remains intact, as a good restoration of its function on completion of involution is seen and felt.

Potter claims the baby's head is spared the prolonged pressure and molding, the avoidance of which is, no doubt, greatly to be desired. De Lee brought forward his prophylactic forceps operation partly to accomplish this very thing. This claim, however, is a contingent one, because, admitting that prolonged pressure exerted on the baby's head is injurious, as Ahrenfest pointed out some time ago, abrupt and uneven, and not slow, gradual pressure, is what causes the damage. Unless this is borne in mind all the time, the baby's interest will not be better safeguarded by either a prophylactic forceps operation or a prophylactic version. In the former, the forcep blades will be closed gently, and traction made slowly and evenly in only the most skillful hands, and in the latter, there is always a chance of the head being subjected to an uneven pressure, be it ever so slight, and the little pressure that is sometimes necessary above the pubic arch must always be made with Ahrenfest's doctrine in mind. Potter and his assistants observe this point carefully, but I do not believe he has placed enough emphasis upon it. It is more important than the avoidance of haste. If anyone but my anesthetist is to assist in making pressure above the pubic arch, he is properly instructed beforehand. Forceps on the after-coming head is preferable to overanxious assistance.

ABSTRACT OF DISCUSSION.

Dr. C. R. Hannah, Dallas: I have been teaching obstetrics a long time and I cannot agree with some observers that the indiscriminate practice of podalic versions and extraction is good obstetrics. It is easily seen from a mechanical viewpoint why the head will not always engage in a normal pelvis. Vertex presentations occur in a contracted pelvis, as do breech presentations in a normal pelvis. When in doubt in the delivery of a baby, I believe that common sense should be the best guide. If a baby is presenting as a breech, and there are no contraindications, it may be delivered as a breech; however, I teach that an external version, should be done three or four weeks before the expected time of delivery. I have heard Potter make the statement that he does not do versions until the end of the first stage when there is complete dilatation. In a great many cases, the obstetrician would have to hurry to be able to do a version, for the patient who is normal and has not gained appreciably in weight over her standard weight, will frequently have a short second stage. Even in a primipara where the right kind of prenatal care has been carried out, the second stage is often one of minutes rather than hours. This being the case, versions are usually unnecessary. What is the difference in a podalic version and a breech presentation? We hear a great deal about breech presentations being as difficult as high forceps. If a breech occurs, then those who advocate versions as a routine measure should be delighted because it will relieve them of that operation. In learning to do version, no man can stand by and learn how it is done. He cannot see a *hundred* cases done, and then successfully do *one*. He must actually do the work to become experienced. Francis K. Brown, Edinburgh, has said that the death of babies in the great majority of cases is not due to asphyxiation, but to brain injuries, asphyxia being the mode of death and not the cause. Asphyxia is a symptom. The complications we must think of in breech extractions are brain injuries, which are far more common than in cephalic deliveries.

If the medical profession desires to reduce fetal injuries and fetal mortality, and place the practice of obstetrics on a scientific basis of worth, then the profession must learn to give intelligent prenatal care, diagnose abnormal positions and correct them before the complications advance too far. Too many of the members of the profession do not know the physiology and mechanism of an ordinary labor. Much more will be accomplished if we would spend our time and energy in teaching the delivery of a normal case and the correction of the complications rather than that of converting the normal into the abnormal case. Doubtless, the fetus can be extracted by the breech method, yet observations and autopsies prove that it is hazardous for the fetus, and only spectacular for the physician when done as a routine measure.

Dr. I. T. Cutter, San Antonio: My experience with Potter's version has been very limited. I have no statistics on which to base much of a discussion. However, I believe that Potter's method of doing a version is excellent whenever a version is indicated. Dr. Johnson is to be congratulated upon his success in his series of cases. I cannot bring myself to believe that full dilatation, an engaged head, and a mother and baby in good condition, are indications for a version by any method. The interior of the uterus should be regarded as a sacred place not to be lightly invaded unless there is some urgent indication for it. To perform version as a routine, or even in a large proportion of labors, requires an aptitude which is not given to all of us. I have been very successful in my experience with the method, but there is always a fear in my mind that there will be some difficulty in the delivery of the after-coming head. In the rachitic pelvis of moderate degree, the promontory of the sacrum is liable to encroach on the pelvic canal to such a degree that any sort of a delivery by the natural passage is difficult. Dr. Johnson is certainly to be congratulated on his freedom from any form of sepsis in 1,000 cases, which speaks well for his technic.

Dr. Lucien LeDoux, New Orleans: The results obtained by Dr. Johnson in the large number of cases in which he has employed podalic version compare

very favorably with reports from other sections of the country where this method of delivery has been adopted as a routine.

Dr. Potter has given us a splendid technique—by far superior to any suggested to date. My experiences since 1922 have led me to adopt the Potter technique, but I oppose the routine termination of labor by this method and its advocacy should be discouraged. Version and extraction are two different operations, and version is not always done for the sole purpose of extraction. To the best of my knowledge none of the New Orleans men who are teaching obstetrics are doing version as a routine procedure in normal labor. The results presented by Dr. Johnson are certainly very interesting, and while I admit to having had ample experience, I must confess that my results both as regards mother and child have not been as completely favorable as the ones he reports.

Dr. Robt. A. Johnston, Houston: Dr. Johnson is to be congratulated upon his remarkable results. One must admit that Potter has made quite a contribution in the revival of the operation, and in his improvement in the technique of podalic version. There are times when everyone practicing obstetrics will be called upon to perform a podalic version, and it is essential that he become familiar with the best method. Everyone must decide for himself the indication for the operation, whether it is indicated routinely or in approximately every other case, as Dr. Johnson's report would have us believe. The question naturally arises, "Would not the expectant plan of treatment have given results equally as good, if not better, in these selected cases which were delivered by Potter's version?"

Dr. J. W. Bourland, Dallas: I would like to ask Dr. Johnson why he performed such a large number of high forceps operations in his series in preference to cesarean section?

Dr. Willard R. Cooke, Galveston: One of the great faults of Potter version is the expenditure of human life in acquiring an education. It is not possible to become as proficient as the advocates of this method, without passing through a very large experience and, unfortunately, in the early stages of this experience infant mortality must of necessity be high. Potter's earliest statistics show this quite clearly, as was brought out in the discussion of his work originally by the Long Island College and Hospital. Dr. Potter's more recent statistics and the figures given by Dr. Johnson in his paper, indicate that it is possible to become so very skillful as to make infant mortality negligible; but certainly it is not possible for the average doctor to become so skillful, even after long practice. Hence it is not a method to be advocated for general adoption. In addition, there are many dangers from infection involved in intrauterine manipulation, so that altogether, there are too many obvious contraindications for the general adoption of Potter's version, especially as a routine procedure.

Dr. Johnson (closing): My reason for reporting 1,000 cases was to prevent the impression that I was an absolute versionist. There were only 400 cases of version in this series. From a report of this number of cases the limitations of any obstetrical procedure may be shown. Version is an excellent method of delivery, when indicated, and will aid one in getting out of many difficult places. The point that you will get into difficulty while preparing for the work is well raised. Sad experience may befall anyone in the learning of special operations, but surely it is no more difficult than mastering the technique of submucous resection, or any of the commonly performed operations.

Dr. Hannah remarked that the cervix should be dilated or dilatable, and questioned the wisdom of doing a version in a multipara with a dilated cervix because the birth generally follows in so short a time after full dilatation. I agree with him and never do a version on a multipara unless the case is seen while the cervix is dilatable and not fully dilated; otherwise the amount of pain saved the mother would hardly justify the anesthetic. Dr. Hannah also said that the versionist should be glad to see a breech, as then Nature had saved him the trouble of turning the baby. Such is not the case. An after-coming breech head, unmoulded, round, with wide biparietal diameters is an altogether different head than is found in the vertex presentation. It is true, however, that if version is only done because of the old indications of disproportions and other complications, then there will be practically the same complications as in a breech case. Dr. Hannah also states that breech presentations are more often due to contracted pelves. This may be true, but I am inclined to believe that in many instances breech presentations are the result of the baby adjusting and accommodating itself to an unusual placental implantation.

The necessity for forceps in so many cases in the series (177 in 1,000 cases) was because it is much easier to handle the head with forceps and anesthesia; it can be pushed back between pains and can actually pass over the perineum with much greater ease and fewer tears, because of the control you have with the forceps and the deeper anesthesia. This will often prevent the necessity of episiotomy. These patients are given all the prenatal care possible, and then a version is done for them to save time and suffering.

The percentage of high forceps in the series is rather large, but was due to our reluctance to perform cesarian sections. The indications for high forceps are: partial or complete failure of the engagement of the head, the waters all drained off, the uterus tightly contracted, or any condition that would make version unsafe. In such conditions, there are only two things to do, use high forceps or wait, and the relief of pain for the woman is the first consideration.

LOCAL ANESTHESIA (SPLANCHNIC) IN ABDOMINAL AND PELVIC SURGERY.*

BY

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Local anesthetics, when used judiciously, limit their field of action to the anesthetized area, according to Labat[1] and leave practically undisturbed the functional activities of the organs on which life chiefly depends, and postoperative disturbances—which are mostly postanesthetic—are considerably minimized and morbidity and mortality greatly reduced when regional anesthesia is the method employed.

Hillman[2] says that he has used splanchnic analgesia, with the technic described by Labat, in eighteen cases, and in each case there has been ample proof that the celiac

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 5, 1925.

1. Labat: Ann. Surg. Vol. lxxx, p. 161, August, 1924.
2. Hillman: Lancet, London, Vol. ccvii, p. 9, July 5, 1924.

plexus has been blocked. In five of the cases the operation was begun and continued for some time without a general anesthetic; in only two was it completed without such recourse. In the other cases it was decided that the amount of ether necessarry to keep the patients just unconscious was not harmful. The operations included partial and total gastrectomy, gastrojejunostomy, ovariotomy and splenectomy. The eight cases cited show conclusively the advantages of the method.

In all cases, shock is conspicuous by its absence and postoperative vomiting rarely occurs, or is so reduced that it scarcely distresses the patient. The method is especially valuable in cases not admitting of a general anesthetic, such as patients with weak hearts or diseased lungs.

Rodzinski[3] reports that 200 patients were prepared for operation at the Lemberg clinic, without any accidents. Serious operations were performed under this local anesthesia, including resection of the stomach for carcinoma and gastro-enterostomy.

Finsterer[4] has the following to say in discussing Kappis' splanchnic anesthesia:

"This consists in making from two to four injections of novocain on both sides of the spinal column, in the left lateral position. The dangers of the method are that (1) in the lateral position a lumbar puncture may be made and overlooked; (2) a large vein, especially the vena cava, may be punctured and thus an intravenous injection of novocain be made which may cause severe collapse or even sudden death, and (3) intoxication may result from absorption. Death from absorption never takes place immediately, but only after some time has elapsed, about half an hour. In order to avoid this danger as much as possible too highly concentrated a novocain solution should not be used; a 0.5 per cent solution is strong enough."

If these three factors are avoided, Kappis' splanchnic anesthesia is not so dangerous as is supposed. In seventy-five cases, Finsterer did not have a death, but he used Braun's splanchnic anesthesia much more frequently as the method of choice. His technic for this is as follows: The patient is given pantopon grains 2/3, an hour before the operation and 45 minutes later, morphine sulphate grains 1/4 and atrophin sulphate grains 1/150. These injections quiet even the most nervous patients to such a degree that ordinarily no general anesthetic is necessary later. Scopolamin should not be used in connection with splanchnic anesthesia because the danger is too great. For the opening of the abdomen accurate conduction anesthesia is necessary and 10 c.c. of novocain is injected into the peritoneum of the abdominal wall on each side, followed by Braun's splanchnic anesthesia. The left lobe of the liver is held up by a spatula while the left middle or index finger presses against the spinal column above the hepatic artery and the celiac trunk, so that the aorta is pushed to the left and the vena cava to the right; the stomach is drawn down with the right hand and the lesser omentum is thus stretched a little. A long needle is then inserted above the index finger toward the bone, under the guidance of the eye, and 70 c.c. of a 1 per cent novocain solution is injected, with pauses for observation. In very old, cachetic or anemic patients only from 50 to 70 c.c. of 1/4 of 1 per cent solution is used.

Pricking the vena cava is not serious, but the splanchnic anesthesia should be given up in that event because of danger of absorption of the novocain, and mesenteric anesthesia performed instead. With careful dosage and avoidance of venous puncture, splanchnic anesthesia is not dangerous. Finsterer has not had a death in 508 cases, either during or immediately after the anesthesia, in spite of the fact that he has performed very extensive resections under the hardest conditions. General anesthesia, for which nitrous oxide is best, was necessary in only a small number of cases. Braun's splanchnic anesthesia is especially adapted to operations in the upper part of the abdomen, stomach resection and cholecystectomy.

Bachlechner[5] says that in 600 cases of splanchnic anesthesia, he found the method harmless. Operations on the upper abdomen were entirely painless. No accidents occurred and he observed no cases of collapse even in the most difficult operations. He has never observed that the method caused any considerable lowering of the blood-pressure, as has been reported by some. Failures are due in many cases to the inadequate anesthesia brought about in the abdominal walls.

There are three methods of introducing splanchnic anesthesia, all of which aim to deposit the solution in close proximity to the splanchnic nerves soon after their passage from the thorax into the abdominal cavity to the point where they reach the semilunar ganglia. Only two of these methods are engaging the attention of the surgeons most interested in this form of anesthesia, namely, the posterior route of Kappis and the anterior route of Braun. Kappis' technic has been

3. Rodzinski: Polska gas. lek., Cracow, Vol iii, p. 511, September 14, 1924.
4. Finsterer: Arch. f. klin. Chir., Berlin, Vol. cxxxi, p. 1, September 23, 1924.
5. Bachlechner: Zentralblatt fur Chirurgie, Leipzig.

covered in quoting from Dr. Finsterer's article, and Braun's technic has also been detailed.

I desire to outline a slight modification of the technic of Braun and Finsterer.

First, a complete physical and laboratory examination of the patient is made and a general readjustment of their living conditions, habits, diet, etc., is prescribed. All possible localized foci of infection, such as diseased teeth, infected tonsils and sinuses are removed. For one week before operation the patient is placed upon a high carbohydrate diet and thoroughly alkalinized.

In stomach operations the mouth receives special attention, gastric lavage is given twice daily for three days before operation. The day before, and again one hour before operation, the stomach is cleansed as usual, after which it is washed with a quantity of weak tincture of iodine solution. The field of operation is prepared in the usual way. Two hours before operation the patient is given morphin sulphate grains 1/4, scopolamin grains 1/100, and twenty minutes before going to the operating room, the patient is given digitol minims 20, morphin sulphate grains 1/4 and atrophin sulphate grains 1/150. It is very necessary to have all preparations in the operating room completed before the patient is brought in and quietude maintained throughout the operation. It is also essential that a table be used that is easy to adjust to any position.

A 1 per cent novocain solution is used throughout the operation.

The skin and muscles of the abdominal wall are then infiltrated according to Rhomboid's method. The incision can be made immediately. I follow the method of Farr in opening the abdomen under negative pressure. This technic consists in packing up each layer of tissue with several pairs of forceps and incising between them. This method entirely eliminates the unpleasant sensation of pressure so often complained of by the patient, and also prevents the abdominal contents from springing out as soon as the peritoneum is incised. After the peritoneum is incised it is gently lifted up and from 10 to 20 c.c. of a 1 per cent novocain solution is carefully injected, completely surrounding the line of incision. The table is then so adjusted that the abdominal contents will recede from the field of operation. At this point a few cubic centimeters of novocain solution is injected in the round ligament of the liver. The liver, stomach and duodenum are retracted sufficiently to expose the point of injection. In some cases this retraction is complained of by the patient; in such case the needle is introduced by touch. The point of injection is at the attachment of the right crus of the diaphragm just above the celiac axis and the hepatic arteries between the abdominal aorta and vena cava. The abdominal aorta is rolled over to the left with the left index finger. The middle finger impinges against the lateral aspect of the body of the first lumbar vertebra and at this point the needle is inserted through the peritoneum in close proximity to the great splanchnic nerve and 70 c.c. of 1 per cent novocain solution is slowly injected. In my cases, the blood-pressure has, on the average, dropped some 30 points during the injection of the first 30 c.c., but by the time of the beginning of the second 30 c.c., it has risen again to normal, and by the time 70 c.c. of novocain is injected I could begin work, the relaxation being complete. The stomach and intestines are so relaxed and flabby that it has not been necessary in any one of my cases, to use packing. The anesthesia lasts for at least two hours.

In cases of adhesions around the gallbladder or of the posterior wall of the stomach and duodenum to the pancreas and under surface of the liver, the organs cannot be retracted, and it therefore becomes necessary to insert the needle by touch. I fasten the needle to my middle finger with a small rubber band and then, following the under surface of the liver and keeping the back of my hand in direct contact with the liver until my index finger impinges upon the abdominal aorta or spine, I roll the abdominal aorta to the left with my forefinger and make sure that the middle finger is against the body of the vertebra. I next push the needle downward until it impinges against the vertebra. The needle is fixed in this position while the hand together with the rubber band is removed. The needle is then slightly withdrawn and suction applied to make sure that the needle has not punctured a vessel; if no blood appears I proceed to inject the novocain solution. It is claimed by Finsterer and others that no harm arises from puncture of of the abdominal aorta or vena cava. They advise the removal of the needle and making firm pressure for a few minutes. Splanchnic anesthesia is abandoned in such accidents and general or mesenteric anesthesia is substituted.

The advantages of this procedure are many: first, a complete relaxation of the abdominal organs makes the work much easier for the surgeon, the anesthesia is of sufficient duration that there is no need for hurry and, therefore, more accurate work can be done; second, the patients are rational at all times, can carry on a conversation while

being operated upon, and, aside from the temporary drop in blood-pressure, the pulse and respiration remain normal. There has been absolutely no shock, nausea, vomiting or gas pains in any of my cases. The patients have been able to begin nourishment much earlier than in cases where a general anesthetic was used. It has been unnecessary to give any opiate to any of my cases or to catheterize any of them. The bowel and kidney functions were at no time disturbed. All incisions have healed by first intention.

Lower splanchnic anesthesia is used in appendectomies of all types. Retrocecal and adhesive types are successfully removed without pain. All plastic operations upon the uterus, tubes, ovaries and round ligaments, in the absence of adhesions, can be successfully done with the addition of slight infiltration. In cases of extensive adhesions it is necessary to combine sacral and trans-sacral anesthesia with the splanchnic.

The injection is made into the hypogastric plexus, just below the bifurcation of the abdominal aorta, opposite the body of the fifth lumbar vertebra. Sixty c.c. of 1 per cent novocain is injected beneath the peritoneum at this point and 30 c.c. into the pelvic plexuses which can be reached along the course of the iliac arteries. This injection should be infiltrated throughout the course of the iliac vessels.

Shock during general anesthesia is caused largely by free hemorrhage. All persons do not react similarly to loss of blood. Trauma to the viscera is a common cause, especially when accompanied by loss of circulatory fluid in the traumatized areas. Excessive nerve irritation adds considerably to the causes of shock. The effect on the ductless glands, particularly the adrenals, causes the lowering of blood-pressure in many patients.

During anesthesia the reserve of glycogen in the system is rapidly consumed as is also the alkali reserve. Under normal circumstances the acid base equilibrium is remarkably stable. The mechanism involved in the maintenance of the equilibrium comprises: (1) The elimination of carbon dioxide by the lungs; (2) the excretion of acid salts by the kidneys; (3) the presence of "buffer" substances in the blood, which include the bicarbonates, phosphates and, probably, proteins; and (4) the production of ammonia at the expense of urea. It has been demonstrated that the lungs take a leading part in the regulation of the acid base equilibrium of our bodies. The carbon dioxide which the lungs excrete has acid properties; when in the blood it is neutralized through combination with alkalis. The excess of available alkali is termed the alkali reserve.

H. Morris states, "In anesthesia there results a compensated acidosis in from 30 to 85 per cent and an uncompensated acidosis in from 15 to 20 per cent of cases."

In splanchnic or infiltration anesthesia shock is practically eliminated (1) by the nontoxicity of novocain. The blood-pressure is only momentarily lowered; the pulse, respiration and kidney function is undisturbed; (2) by the patient being conscious, the surgeon naturally handling the tissues with greater ease, and being more precise in his technic, thereby lessening the loss of blood and trauma of the viscera; and (3) by the preliminary hypodermic injections of morphin and scopolamin which are used in larger doses, thereby lessening the damaging effect of fear, and the many psychic phenomena.

Large quantities of novocain can be used without any toxic symptoms, as much as 400 c.c. of a 1 per cent solution may be employed. The amount of morphin and scopolamin that is used is perfectly safe (that is, up to 1/2 grain of morphin and 1/100 grain of scopolamin). The pulse and respiration seem little affected by medium doses. Morphin-scopolamin anesthesia was first reported by Schinderlin in 1900, and although it has from time to time had many advocates, its use cannot be too severely condemned. A. C. Wood, in 1906, collected 2,000 cases with 9 deaths, or 1 in 121. This frightful mortality from large doses must not be confused with the small or medium dose used as a preliminary to local anesthesia.

I have successfully operated on a series of 84 cases including: 15 gastro-enterostomies, 2 subtotal resections of stomach and duodenum with gastro-duodenal anastomoses, 5 combined cholecystectomies and posterior gastro-enterostomies, 8 cholecystectomies, 2 cholecystotomies, 10 supravaginal hysterectomies (fibroids), 3 panhysterectomies, 11 appendectomies, 24 pelvic cases, including pus tubes, infected ovaries, retrodisplacement of the uterus with adhesions, adherent appendix, and lacerated cervix and perineum, 3 nephrotomies, and 1 nephrectomy.

CASE REPORTS.

Case No. 1.—A. L., male, aged 60 years, had cholecystitis. A cholecystectomy was done under infiltration and anterior splanchnic anesthesia on December, 1924. Before infiltration was begun his pulse was 85, respiration 20, blood-pressure 150/80. In 15 minutes the pulse dropped to 75 and remained there throughout the entire time of operation with slight variations. By the time the peritoneum was closed the pulse had dropped to 72; respiration was not affected. The blood-pressure dropped to 80/80 during the injection of the first 30 c.c. of novocain into the splanchnic area, but almost immediately

rose to 120/80. The patient was not nauseated at any time, and had no gas pains. The pulse, respiration and blood-pressure remained normal throughout the entire convalescence. The patient was hungry that same evening and the following day was given a carbohydrate diet. He made an uneventful recovery.

Case No. 2.—Miss R. H., aged 23 years, suffered from a chronic retrocecal appendicitis. Just before beginning infiltration of the abdominal wall her pulse was 100, respiration 20, and blood-pressure 140/80. While infiltrating the abdominal wall the pulse rose to 140, but was full, strong and regular. After engaging the patient in conversation, and assuring her that she would be all right, the pulse gradually dropped to 110 and then rose to 120 by the time the peritoneum was closed. The respiration was not affected. At the time of injecting the novocain solution into the hypogastric plexus the blood-pressure dropped to 90/60, then immediately rose to 140/80, where it remained throughout operation. This patient suffered no nausea, gas pains or discomfort of any kind, and made an uneventful recovery. The relaxation of the abdominal wall was complete, and the patient suffered no pain during the operation.

Case No. 3.—C. H. W., aged 23 years, had an acute gangrenous appendicitis with multiple adhesions, and was operated on December 12, 1924, under infiltration and lower splanchnic anesthesia. I was able to separate the adhesions and remove a very large gangrenous appendix without any pain to the patient. He was not nauseated, nor did he suffer from any gas pains following the operation.

Case No. 4.—Mrs. J. C., aged 37 years, had cholecystitis and a duodenal ulcer. A posterior gastroenterostomy and cholecystectomy was done under infiltration and anterior splanchnic anesthesia, January 3, 1925. Just before beginning the infiltration of the abdominal wall, her pulse was 140, blood-pressure 150/80. While injecting the splanchnic area the pulse rose to 160, and the blood-pressure dropped to 100/80. For the next thirty minutes the blood pressure continued to fall until it reached 90/60 and then it rose to 140/70, and immediately after closing the abdominal incision the pulse was 120 and the blood-pressure 120/60. At 5:00 p. m., the blood-pressure had risen to 138/85. The patient made an uneventful recovery.

Case No. 5.—Mrs. H. C., aged 36 years, had an empyema of the gall-bladder. On January 17, 1925, I did a cholecystotomy under infiltration and anterior splanchnic anesthesia. Her pulse just before beginning infiltration of the abdominal wall was 120 and remained at this point throughout the entire operation. Her blood-pressure was 120/70, where it remained until the splanchnic injection was made. It then dropped to 90/65 and immediately rose to 120/80. The gall-bladder lift on the operating table was raised about four or five inches and immediately the blood-pressure dropped to 65/50 where it remained for 15 minutes. The gall-bladder lift was lowered and immediately the blood-pressure returned to 120/80. This patient has made an uneventful recovery with no nausea or gas pains, or any disturbance whatsoever. She was put on soft diet the same evening of the operation and has enjoyed her meals daily.

Case No. 6.—P. C. M., aged 54 years, suffered from a peptic ulcer. A posterior gastroenterostomy was done on December 22, 1924, under infiltration and anterior splanchnic anesthesia. Her pulse just before beginning infiltration was 80 and ranged throughout the entire operation from 80 to 100 and was 80 at the conclusion of the operation. The blood-pressure just before operation was 130/80; it remained at this point until the splanchnic injection was made, when it dropped to 80/50, but immediately rose to 130/80. Respiration was not affected, and there was no nausea or gas pains, or any disturbance whatsoever. All symptoms have been relieved and he is making a remarkable recovery.

Case No. 7.—J. K., male, aged 54 years, had an acute intestinal obstruction. He was operated on January 24, 1925, under infiltration and anterior splanchnic anesthesia. Just before beginning infiltration of the abdominal wall the pulse was 100, the blood-pressure 160/100, and the respiration 20. At the time of infiltrating the hypogastric plexus, the blood-pressure dropped to 140/100, but immediately rose to 160/100, where it remained throughout operation. The relaxation was complete in this case, and there were no protruding intestines, no nausea and no gas pains. The patient made an uneventful recovery.

Case No. 8.—Mrs. W. G., aged 26 years, had a bilateral pyosalpingitis, cystic abscessed ovaries, many adhesions and a subacute appendicitis. A left salpingo-oöphorectomy, a right salpingectomy with resection of the right ovary, and an appendectomy was done on February 3, 1925, under sacral and trans-sacral infiltration and lower splanchnic anesthesia. The same preliminary narcotics was used in this case with the exception that they were given in a 25 per cent sterile solution of sulphate of magnesia. At 8:00 a. m., injection of sacral canal was begun, at which time the pulse was 120, the blood-pressure 120/80, and the respiration 18. At 8:15, the infiltration of the abdominal wall was begun, and at this time the pulse was 140, the blood-pressure 130/80, and the respiration 20; at 8:45 the hypogastric plexus was infiltrated with 40 c.c. of a 1 per cent novocain solution. At this time the pulse was 140, the blood pressure 150/90, and the respiration 25. At 9:00, while freeing adhesions, the pulse was 130, the blood-pressure 130/90, and the respiration 20. At 9:30, the pulse was 120, blood-pressure 130/80, and respiration 20. At 9:45, the pulse was 120, blood-pressure 130/80, and respiration 20. At 10:00, the pulse was 120, blood-pressure 130/80, and respiration 20. At 10:30, the abdominal incision was closed, and the pulse was 130, blood-pressure 130/80, and respiration 20. At 2:00 p. m., the pulse was 110, blood-pressure 135/80, and respiration 20. At 9:00 a. m., February 4, 1925, the pulse was 80, blood-pressure 130/80, and respiration 20. There was no nausea or gas pains. The patient had a normal convalescence and has left the hospital.

Case No. 9.—Mrs. C. T. J., aged 32 years, had chronic appendicitis and visceroptosis, and was extremely nervous, a pronounced neurasthenic. An appendectomy was done on February 4, 1925, under infiltration and lower splanchnic anesthesia. The usual preliminary narcotic was given in a 25 per cent sterile solution of sulphate of magnesia. The infiltration of the abdominal wall was started at 8:15 a. m., at which time the pulse was 160, blood-pressure 120/80, and respiration 18. At 8:20, the pulse was 140, blood-pressure and respiration the same. At 8:30, the peritoneum was opened and the splanchnic injection made, and at 8:45, the appendix was removed. The pulse, blood-pressure and respiration remained unchanged. At 9:04, the abdominal incision was closed, when the pulse was 140, and the blood-pressure and respiration remained unchanged. Patient dozed throughout entire procedure, drank water some two or three times and stated from time to time that she felt absolutely no pain and no nausea or gas pains. She made an uneventful recovery.

Case No. 10.—Mrs. F. J. L., aged 45 years, had a lacerated perineum and cervix, a retroflexed uterus, and chronic appendicitis. On February 6, 1925, we did a trachelorrhaphy-perineorrhaphy, a Baldy-Web-

ster suspension of the uterus and an appendectomy under sacral and trans-sacral infiltration and lower splanchnic anesthesia. The usual preliminary narcotic was given in a sterile 25 per cent sulphate of magnesia solution. The injection was started at 8:00 a. m., at which time the pulse was 90, blood-pressure 120/80, and respiration 18. At 8:15, she was turned on back and placed in the lithotomy position. The vagina was scrubbed and painted with iodine, and during this time the pulse rose to 130, the blood-pressure to 160/100, and the respiration to 20. At 8:30, the vaginal work was finished, and her pulse was 120, blood-pressure 138/90, and respiration 20. The patient was placed in the Trendelenburg position and the abdomen prepared. The abdominal wall was infiltrated, the abdominal incision made and the hypogastric and pelvic plexuses injected. At this time the pulse was 120, blood-pressure 130/80, and respiration 20. At 10:00 a. m., the operation was concluded and the abdominal incision closed. The pulse was now 120, blood-pressure 135/80, and respiration 20. The patient conversed freely, drank several glasses of water, and stated from time to time that she was in no pain, and suffered no nausea or gas pains. She made an uneventful recovery.

Case No. 11.—Mrs. M. K., aged 26 years, had a pyosalpingitis, bilateral cystic ovaries, a bilateral retroflexed uterus, and chronic appendicitis. On February 9, 1925, we did a bilateral salpingectomy, left böphorectomy, a resection of the right ovary, a modified Baldy-Webster, and removed a very large, firmly adherent retrocecal appendix, under infiltration and lower splanchnic anesthesia. The usual preliminary narcotic was given in a 25 per cent sulphate of magnesia solution. Many firm adhesions were encountered in this case. The sacral injection was begun at 8:00 a. m., at which time her pulse was 100, blood-pressure 110/80, and respiration 18. The pulse, blood-pressure and respiration remained approximately the same throughout the entire operation. The patient conversed, drank water, and stated from time to time that she could not feel any pain. The operation was concluded at 10:30, and no shock, no nausea, and no gas pains followed the operation. The patient made an uneventful recovery.

Case No. 12.—Mrs. H. P. S., aged 48 years, had a fibroid uterus, and was suffering from a severe secondary anemia. On February 13, 1925, we did a supravaginal hysterectomy under sacral and trans-sacral infiltration and lower splanchnic anesthesia. The usual preliminary narcotic was given in a 25 per cent sterile sulphate of magnesia solution. Firm adhesions were encountered between the rectum and posterior wall of the uterus. The sacral injection was started at 8:00 a. m. Her pulse was 140, blood-pressure 160/90, and respiration 20. The sacral and trans-sacral injection was finished at 8:12. The patient was then turned and placed in the Trendelenburg position, at which time the pulse was 160 and the blood-pressure 195/105. Infiltration of the abdominal wall was started at 8:19. The peritoneum was opened at 8:38, at which time the pulse was 150 and the blood-pressure 160/100. The hypogastric plexus infiltration was finished at 8:43. At the time of the injection of the first 10 c.c. of novocain solution, the pulse dropped to 120 and the blood-pressure to 110/80. The pulse gradually rose to 140, and the blood-pressure to 150/100. The pulse and blood-pressure remained practically the same with slight variations. At 9:15, at which time the skin incision was closed, the pulse was 130 and the blood-pressure 140/90. At this time the patient was changed to the lithotomy position and the cervix cauterized. The patient suffered no pain during the entire procedure. She complained slightly while freeing the firm adhesions between the rectum and posterior wall of the uterus. I would like to call your attention to the fact that this cauterization was done exactly two hours after the sacral and trans-sacral anesthesia was begun. The perineum, vaginal wall and cervix was thoroughly anesthetized at this time. This patient conversed freely during the operation and was smiling when she left the operating room. I saw her at 1:00 p. m., February 13, 1925, and her pulse was 100, full and strong, and respiration 18. She was happy and free from pain. The patient was not shocked, but vomited a quantity of bile. After washing her stomach and placing her in a semisitting position, the nausea ceased.

ABSTRACT OF DISCUSSION.

Dr. James Hill, Houston: Successful work under local anesthesia is dependent upon the technique and ability of the operator. It is easier to do than it is to teach how it can be done. I believe that the ether open drop method is still the best form of anesthesia. The most difficult operation under local anesthesia is the removal of the gall-bladder. Abdominal infiltration is reasonably easy if one knows the nerves and landmarks.

Dr. Neely, Terrell. Dr. Denman speaks of the intestines not protruding under local anesthesia. Dr. Pharr reports the same results. I feel that this has changed upper abdominal surgery. My patients have done exceedingly well. There has been no shock. There has been some discussion concerning the danger of scopolamin. I have seen no bad results from its use. In local anesthesia I believe that the posterior method answers the purpose better than the anterior. The blood-pressure does fall temporarily, but there is no shock and no need of hurry in the operation.

Dr. M. L. Brenner, Houston: I have observed these cases with Dr. Denman and I have noted the wonderful postoperative convalescence. There were no gas pains; no opium was used, and no catheterization became necessary. During the operation there was complete relaxation, the intestines falling right back into place, especially in cases of acute peritonitis with distension and with pus in the abdomen. No sponges were used. All of these things cause the surgeon to handle the tissues gently. There were no toxic effects.

Dr. Denman (closing): It is often said that only selected cases are operated under local anesthesia; we did not select these cases. Under this method of anesthesia the intestines are always relaxed. We have used as much as 400 c.c. of a 1 per cent solution, and have recently cut the strength of this to ½ of 1 per cent, except in sacral anesthesia, where we use a 1 per cent solution and disregard the amount. It is always necessary to handle the tissues gently and to do a sharp knife dissection.

Holmes' Dead Shot.—On April 30, 1925, Benjamin T. Holmes, of Vidalia, Ga., was debarred from the use of the mails in the postoffice at Vidalia which was instructed to return to senders all letters that came addressed to Holmes with the word "Fraudulent plainly written or stamped on the outside of such letters. Holmes is a farmer, about 75 years of age and not a physician. He was engaged in the sale through the mails of "Holmes Dead Shot" for the cure of "syphilis, gonorrhea, kidney diseases, catarrh, eczema and all diseases arising from impure blood." Analysis by the government chemists showed the preparation to be essentially a mixture of tar, cubebs, ferrous sulphate and copper sulphate. —*Jour. A. M. A.*, June 6, 1825.

ADEQUATE TREATMENT FOR HEREDITARY LUES.

BY

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In considering hereditary syphilis a special appeal is made to one's sympathy by the knowledge that the patient is the innocent victim of a terrible disease, and that this innocent victim has a disease that could have been prevented had some good doctor taken proper precautions in time.

I wish to discuss briefly the story of syphilis in children, but before doing so I will review a few facts about syphilis in general. According to the United States census of 1920,[1] syphilis stands fourth as the cause of death throughout the country, organic disease of the heart, pneumonia and tuberculosis slightly exceeding it. The general incidence of syphilis among the population of the United States is variously estimated at from twelve to twenty per cent, but certainly it is high. J. Whitridge Williams[2] found syphilis as the cause of 26 per cent of 705 fetal deaths among 10,000 consecutive deliveries. He was able furthermore to show that 40 per cent of the premature deaths were due to syphilis. Cruikshank[3] agrees that the incidence of congenital syphilis is probably only about 1 per cent of all the children born. This is a high percentage, especially when it is considered that the late sequelae of syphilis are disabling, frequently rendering the child unfit for self support. Lemaire and David,[4] however, found sufficient evidence to make a diagnosis of syphilis in 19 per cent of 1,000 infants examined at one French clinic.

What are the early manifestations of congenital syphilis? These congenital syphilitic patients fall into three groups; first, those born with active open lesions, or who develop definite evidence of lues within the first eight weeks of infancy; second, those with latent lues, which remains undiscovered until some intercurrent infection or until some unusual strain, such as that put upon the body at puberty, brings out active manifestations; third, those children who have no active evidence of lues except for their delicate health or their backwardness.

Congenital lues can produce any of the lesions that are seen in the adult; but there is no regularity in its course to make the diagnosis easy. The various factors determining the character of the lesions and the virulence of the infection are by no means settled. The spirochaeta pallida does not follow the generally accepted laws of immunity, nor does the resistance of the patient rest upon so simple a result as an acquired immunity to the organism. It has been shown that the spirochaeta pallida exists in several strains, with a predilection for different tissues; that is, one produces predominantly skin lesions, another principally lesions of the vascular system, while others prefer to attack the central nervous system. There is definite evidence to show that syphilis is decidedly a general infection, regardless of the fact that the manifestations may be predominantly local in character. In congenital syphilis the disease may produce typical and severe lesions in the skin and mucous membranes with late or no involvement of the central nervous system. Again, the bones or vascular system may be the site of the most severe lesions or the central nervous system may give the first indication that the child is diseased.

We may summarize the lesions of hereditary or congenital syphilis as those of the skin, usually as bullae of the palms and soles (although any type of luetic skin lesion may occur), mucous patches and fissures about the orifices of the body; those of the bones, as epiphysitis, osteochondritis and periostitis, particularly of the skull, tibia and fingers, producing lesions easily confused with rachitis and tuberculosis; visceral disease, usually as hepatitis and splenitis; those of the central nervous system which may become evident very early in life, as idiocy at puberty, or later as juvenile tabes or taboparesis. However, these types of the disease do not follow any hard and fast rules.

The group of symptoms that particularly concern the ophthalmologist and the otolaryngologist are those of coryza with ulceration of the nasopharynx, which may extend into the eustachian tube, thereby producing otitis and deafness; perforation of the nasal septum, producing a saddle nose; perforation of the palate; chondritis of the epiglottis with stenosis, or ulcerating gumma of the tonsils. These lesions may occur early in the life of the child or may make their appearance late. The typical Hutchinsonian teeth occur only in the second dentition. Iritis, choroiditis, interstitial keratitis, ptosis, strabismus, optic atrophy, orbital exophthalmos, and nystagmus may all be of syphilitic origin, and most commonly make their appearance about the time of puberty, but they are occasionally found during the first few months of life.

1. Mortality Statistics, United States, 1920.
2. Williams, J. Whitridge: Bull. Jobns Hopkins Hosp., November, 1923.
3. Cruikshank, J. N.: Brit. Med. Jour., Vol. ii, p. 593, 1922.
4. Lemaire, H., and David, R.: Bull. Soc. de Pediat. de Paris, May, June, July, 1923, p. 214.

Hydrocephalus, meningitis, encephalitis, myelitis and peripheral nerve palsies may all be the results of syphilis.

The diagnosis of these conditions can be made by any doctor if he will take a careful history and examine the child thoroughly. Unfortunately, the Wassermann reaction is very frequently negative in congenital syphilis for many months after birth, and the sense of security in the present day that such a negative reaction gives is nothing short of tragic.

Certain historical facts should always be asked the parents in every case in which the diagnosis is obscure. The mother frequently gives a history of several unexplained miscarriages, but will often deny the knowledge of a chancre or a secondary eruption. The father will more frequently admit having had a chancre, and the blood of either or both may show a positive Wassermann. That parents may pass hereditary syphilis on to the third generation is very doubtful, although there are several cases reported to show that they may do so. The sick child of a parent who has once had syphilis should always be considered syphilitic until proved otherwise.

The use of the spinal puncture has a bad reputation among patients, but its diagnostic value is very great. Very frequently, in adults as well as in children, the blood may show a negative Wassermann and the spinal fluid a positive, together with an increased cell count, a positive globulin and a syphilitic colloidal gold reaction. The luetin test and many others are used occasionally, but are largely confirmative in value.

When a disease is so much written about and the results of poor treatment are as disastrous as in the case of syphilis, it is the duty of every doctor to combat it. For instance, by a process of education and propaganda, the average layman has come to have definite and fundamentally correct ideas about the seriousness of tuberculosis, and as a result, the disease is being much better handled and the number "cured" much greater than twenty years ago.

The application of the word venereal to syphilis has been and is the great stumbling block to its early recognition and adequate treatment. So long as syphilis is considered a reason for ostracizing and socially abusing the sufferer from the pulpit and in polite society, this scourge will never be controlled nor adequately treated. About 20 per cent of conjugal syphilis is innocently acquired; that is, usually by the wife from an infected and inadequately treated husband. Certainly, the child with a syphilitic taint is innocent! It is time that everyone throw off all hypocrisy and squarely face the facts.

W. W. Graves[5] of St. Louis, says: "It is safe to say that not more than 10 per cent of the total number of syphilitics, who come under medical observation in the early periods of the disease, receive what is believed to be 'adequate treatment;' hence the number of adequately treated cases is insignificant when compared with the number we believe to be inadequately treated and with the number who either ignore or are unaware of their infection."

What is considered adequate treatment by the best men in the country? Schamberg[6] is a good example of the best. He believes that the "irreducible minimum" of treatment should be, regardless of the effect upon the complement-fixation reaction (the Wassermann), three courses of treatment the first year, with an average duration of from two to three months per course; two during the second year, and one in the third. This does not constitute a sufficiency of treatment, but is merely the least possible amount any given case should receive.

If one should sit in any syphilitic clinic and hear the history of treatment that the majority of patients have received since their infection, he would be absolutely convinced that something is radically wrong. Most of these patients have received two or three doses of neosalvarsan, occasionally ten, scattered over two or three years, with a few mercury protiodide pills to take along in the interval. Many of them have syphilis of the central nervous system, severe cardiovascular syphilis or affections of the cranial nerves. *It is now known that the majority of these late sequelae, ninety per cent and over, can be prevented by an early adequate treatment.*

The reason that many of these patients have not received adequate treatment is because they are afraid to have it known that they have syphilis, because they will be marked as socially unfit. They often patronize the advertising quack who will guarantee a cure after two or three doses, depending upon how much money the victim has. Many doctors, not quacks, are without sufficiently accurate knowledge of the disease to recognize the stage of the disease and to know what treatment will give the greatest possibility of arrest or cure. Then, too, the average fee charged for a single dose of salvarsan is so large that the patient cannot afford to carry on his treatment for two or three years and remain under observation

5. Graves, W. W.: "Principles in Modern Recognition and Treatment of Syphilis," Amer. Jour. of Syphilis, January, 1924, Vol. viii, p. 74.

6. Schamberg, J. F.: "Modern Conceptions of the Treatment of Syphilis," Penn. Med. Jour., January, 1923, Vol. xxv, p. 228.

for five years. As a result, the patient must either take occasional treatment, go to a free clinic, or he must ignore the disease.

Adequate treatment of hereditary lues differs in principle not one bit from the treatment of the adult syphilitic; the differences depend upon the mechanical therapeutic difficulties and the dosage.

The drugs accepted as the best in the treatment of adult lues are the new American arsphenamin, mercury and the iodides. Neosalvarsan, because of the simplicity of its administration, is used in place of the arsphenamin by many men, while the most men reserve it for those patients who do not tolerate arsphenamin well and those with small veins. Sulpharsphenamin is rarely used in the adult because of its low therapeutic efficiency. Tryparsamid, a new arsenical, is the most promising drug developed within the last two years; it offers renewed hope to the hitherto practically hopeless group of general paretics. From the reports of Lowenhart[7] and others, this drug is performing therapeutic wonders among this pathetic class, reclaiming a very high per cent of them to a self-supporting condition. Bismuth is still in its experimental stages, and the results with it are not wholly encouraging.

Certain factors must be taken into account before treatment is begun and after a searching examination of the patient. These are the general resistance of the patient, the extent and seriousness of the visceral involvement, and the presence of an intercurrent infection. Not the least important is the stage of the disease in which the child is presented for treatment. When the child has an active skin and mucous membrane eruption, the indication for immediate and active treatment is self evident. When the child is presented in a latent stage of the disease but is weak, anemic and not showing active disease, the treatment should be outlined with caution. If there is such a thing as immunity to infection, whatever its degree, it must be conserved, for that is the very thing that the treatment itself is planned to do. When, however, the late manifestations of latent lues begin to show renewed activity, as at about puberty, active and intensive treatment is again indicated.

There are two ways in which to administer the arsenicals, either as massive doses over a short period of time, with the attempt to sterilize the patient of the spirochetosis, or in smaller doses over a long period of time, with the idea of increasing the patient's general health and with a secondary, but not radical spirocheticidal action. No hard and fast rule can be laid down to govern the treatment of any particular case, and the patient must be treated on the basis of his general health and not by any rule of thumb.

In general, the treatment should be given in courses, including arsenic as arsphenamin or neoarsphenamin in older children and adults; and sulpharsphenamin in small children. Mercury should be given in the intervals between the arsenical treatments, in the form of daily rubs with mercurial ointment or by intramuscular injections of some of the mercurial salts, preferably the soluble salts, once or twice a week. Those with marked renal damage should be given the combined treatment with caution, but if a careful watch is kept on the urine, serious consequences from kidney damage rarely follow. The dosage must be suited to the age and weight of the patient. The first dose of the arsenical should be only one-half the reckoned average dose, to determine that the patient has no idiosyncrasy to arsenic, and that he will not have a severe Herxheimer reaction. The use of mercury for a week before the first dose of arsenical also tends to prevent a serious reaction from the arsenical.

The treatment should be continued in courses of from six to twelve doses of the arsenical and the accompanying mercury over as many weeks; a rest period of six weeks is then given in which the mercury is continued; at the end of that time treatment is discontinued altogether for two weeks or longer. Before treatment is begun again, a Wassermann test is made, and if that is negative, a lumbar puncture is done, with a complete examination of the spinal fluid. Three such courses are given the first year and as many each year thereafter as the condition of the patient warrants.

In those patients who are intolerant to arsenic, mercury and the iodides will often work wonders, and in some of them the addition of bismuth has been beneficial. Arsphenamin and bismuth is better treatment in others.

The results of treatment of the lesions commonly seen in the eye, ear, nose and throat are usually good. The disappointments come in certain late cases, which have relapsed after insufficient treatment and in those who come for treatment after much tissue has been destroyed or in whom a complete paralysis of some of the cranial nerves has taken place. Even in this group, benefit may be expected and the general health improved, although the scars of the healed disease may remain.

7. Lowenhart: Jour. A. M. A.

Tabes and paresis should be treated intraspinally as in the acquired disease, but the results in children are not so good as in the adults.

When is the patient cured? That is the most serious, and at the same time the most baffling question to answer. One syphilographer has said that none but a wise man could answer that question, and he, by answering it *positively,* would thereby prove himself a fool. The following is a fairly accurate criterion upon which to release a patient from active treatment: After treatment has been continued in full continuous courses over two or three years up to the tolerance of the patient, if the patient's blood Wassermann remains persistently negative for two years after the last treatment, if there is no clinical evidence of active lues and if the spinal fluid is normal, it may be presumed that the patient is cured. Observation must be continued for at least five years, and probably should be continued throughout the patient's life. Relapses are prone to occur, and by this prolonged observation the indication for more treatment can be immediately met.

Adequate treatment of hereditary lues means that the therapeutic needs of *each particular patient* have been met.

CANCER TREATMENT, A REGIONAL, TYPE, AND PERIOD PROBLEM.*

BY

HUGH CROUSE, M. D., F. A. C. S.,
EL PASO, TEXAS.

Cancer, the ubiquitous yet the unknown, still stands, in an etiological sense, as a medical Verdun. Much work has been done looking toward the interpretation of its tissue ravages. The following causative theories have been advanced: Mechanical, physical, embryological, thermic, actinic, chemical, infectious, inflammatory, endocrine dysfunctional, nutritional and hereditary.

Cohnheim's embryological theory and Bilroth's dictum that no malignant condition develops without a long-existing inflammatory state producing a chronic irritative condition, seem to remain as the two most widely accepted theories of the cause of cancer.

Parasitic theories include: James Young's coccidial and transitional change studies; Otto Schmidt's mucor racemosus, undoubtedly belonging to the mycetozoa; Cronk's protozoon trichomonas; Febiger's and Sambon's cockroach intermediate host studies, and Schaudinn's ascitic ameboid bodies. Under irritative chemical causes come the high-boiling-point tar irritative causes in rabbits, rats and mice, investigated by Yamagiwa, Ichakawa, Leitch and Kennaway, and Hutchinson's notation of the development of multiple skin conditions from the long use of arsenic.

Dercum's biological changes and Achard's review of the literature of endocrine dysfunction as malignancy developing factors are interesting, covering, as they do, a varied gland change. It seems tenable to consider such dysfunctions as a sequence instead of as a cause of existing cancer pathology. Traumatisms, Stone states, were found as a probable agent of breast cancer development in 28 per cent of 85 carefully studied cases. Gliosarcoma and osteosarcoma have frequently been observed promptly following a trauma.

Nutritional faults based on an excess of proteids, have been offered as a cancer cause, and again, a superabundant carbohydrate diet. Deficient, or starvation diet, affect the growth of malignant tumors, but it is extremely doubtful that such factors serve as an etiological agent. Retinal glioma's hereditary tendency seems proven. Cosmo's observation in Santiago, where in a large family with an accurate ancestral history, only one child escaped glioma development, is an interesting bit of seemingly adequate proof of the hereditary tendency of this form of malignancy. In the desert sections, medical men with years of observation, have noted the frequent occurrence of certain skin types of cancer, seemingly as a result of repeated sunburn. The same thing has often been noted among seamen. Of course, the irritative result of long exposure to the *x*-ray has been so frequently observed as a cancer cause that it needs no comment. Maude Slye's investigation of the hereditary influence of mice stands out as another possible explanation of the side-chain agent as a cause of cancer.

The tissue transplant experiments carried out by Loeb, Jensen, Murray and Woglum, and the studies of Francis Carter Wood and Maude Slye, have proven to be valuable in demonstrating the dominant resistant and the recessive susceptibility factors of tissues in an hereditary and organ sense. Their work, viewed from various angles, has elucidated a great many of the pathological features of cancer, such as its non-development, its organ-selective, hereditary tendency, and the hereditary resistance on the part of the progeny. The parental transmission of cancerous states is a very important subject. Unless one accepts the

*Read before a General Meeting, State Medical Association of Texas, Austin, May 7, 1925.

belief that irritation and embryological rests of non-resistant cells explain it, the etiological story of cancer is as yet a medical mystery.

In the diagnosis of malignancy, one necessarily must weigh the age of the individual, which will indicate to a degree the type, the clinical story, the subjective symptoms, the physical findings and the objective signs. In classifying the pathology of a possible malignant condition, whether such exists in the skin, oral surfaces or organs, the abdominal structures, pelvic viscera, breast, prostate or kidneys, all such should be weighed as important.

Unfortunately, the subjective signs of malignancy, particularly of the deeper structures and organs (consisting principally of pain and cachexia—late manifestations of malignancy), serve but slightly as an aid to the diagnostician. Early diagnosis is essential to a high cure percentage. Subjective signs are usually only prognostic features. Bleeding from bladder or rectum, or bleeding from the uterus of an irregular type, or occurring in the female who has passed the menopause, accompanied by an odoriferous discharge, serve as marked deciding features in the diagnosis respectively of bladder, bowel or uterine cancer in its various forms.

J. G. Clarke's method of cleansing the vulva and vaginal strait in a careful manner and then placing the patient in the Trendelenburg posture, and after widely stretching the vagina, filling it with a 1/500 bichloride solution, and then passing a sterile sound up into the uterus and lightly sweeping it over the endometrium and noting if such treatment produces bleeding, has proven to be quite pathognomonic of fundal forms of cancer. Ewing's method of removing with a loop specimens for microscopical examinations under aseptic precautions, has also proven of diagnostic aid as to the existence or non-existence of an endometrial malignant state.

The curettement of the fundus of the womb and of the cervix, and submitting such scrapings to histological examination, is advantageous, providing the pathologist who passes upon them is a careful, conscientious and thoroughly trained histological investigator. Twice in my experience, years ago, following the curettement of a uterus and the sending of the scrapings to one of the leading pathologists, I received a report that such was a malignant endometrial condition, which reports time has proven to be probably erroneous. Frankel records 24 cases in which thorough curettement of malignant endometria, demonstrated by histological examinations, resulted in a cure. My two cases never submitted to any operation, further than the curettement, yet remained well for a period of eight years, the time they were under my personal observation. The histological differentiation of a chronic inflammatory cell from a malignant one is often a very difficult proposition. The removal of mass sections, while diagnostically of great aid, stands as a possible agent of infiltration and in scattering of malignant cells.

In the diagnosis of gastric malignant states, one has in the majority of cases, the presence of the Boas-Oppler bacilli, a marked reduction of total and free hydrochloric acid, along with the presence of lactic acid, as adjuncts to a careful fluoroscopic or radiographic examination. Such laboratory findings should be correlated with a careful clinical story and a complete physical examination. These serve as differentiating points between gastric ulcer and gastric malignancy.

Many promising laboratory tests have been advanced in recent years for differentiating a doubtful internal pathology, but have proven fallacious, as far as cancer is concerned. Abderhalden's foreign protein reaction, complement fixation tests, increased blood-sugar curve subsequent to glycogen administration, blood chemistry changes or opsonic index suggestions, individually and collectively, have failed in aiding the diagnostician in differentiating debatable pathological conditions. Urinary tests, such as a sulphur content change and creatinin findings seemingly promised much, but all these have proven unavailing in clarifying disputed points, except the Bence-Jones bodies in myelomatous states.

Age incidence, the patient's story, a careful physical examination and the acumen of the examiner still remain the diagnostic features that are really worth while, and that can be classified as reliable in diagnosing cancer.

Tuberculosis, syphilis and epithelial forms of cancer, all have a tendency to develop macroscopically similar manifestations. Lupus vulgaris and lupoid skin changes, or the long-existing and indurated-edge changes of tertiary syphilis, frequently simulate on the skin, on the buccal surfaces, on the glans penis, on the cervical edges and in the vaginal wall, those of malignancy. The finding of the tubercle bacillus or the positive Wassermann does not, unfortunately, rule out cancer. Each of these two neoplastic conditions have been found to be the irritative cause of malignant states and accompanying troubles, not alone of the bladder

wall, but of the cervical surfaces, of the buccal mucous membrane, and of pathological skin states. Therapeutic agents, to a degree, clarify syphilitic conditions from cancer.

The feature of malignancy that stands out as the most interesting, and the feature that has been advanced to the most marked degree, is that of treatment. The armamentarium of treatment should consist in radium in ample amounts, *x*-ray equipment of the water-cooled, Coolidge type of high powered 50 MA or the 90,000 volt machine for lymphoid and cellular types of tumors, and diathermia. For the surgeon, unless he be a very versatile individual, the proper treatment of malignancy necessitates associates or colleagues.

The treatment of a malignant state must necessarily be decided upon, after considering the region involved, the type of malignancy existing, the period of its existence, and the age of the patient. Surgery still remains, in the early states of malignancy in many of its different manifestations, as the proper agent to be selected. Fundal carcinoma, where the uterus is thoroughly movable, where there is no perimetric involvement, seemingly no broad ligament thickening, no metastasis that can be discovered, gives a successful surgical result in 57 per cent of cases, granting that three to five year non-recurrence is accepted as such. Cervical carcinoma, diagnosed early or diagnosed late, still stands as a debatable question between the average surgical group and the radiological group. Doctor Greenough's Committee's report to the American College of Surgeons gives the following results: Radium compared in a therapeutic sense with surgery, gives a curative result in from three to five years in 33⅓ per cent; surgery, a curative result in 25 per cent, with a primary mortality of 1.6 per cent from the use of radium, and 20 per cent from surgery. The mortality and morbidity results in surgery in comparison with radium, indicate that cervical carcinoma, whether in the early stage, borderline or widely desseminated condition, requires, in all probability, a radium type of therapy. I have not dealt surgically with a single cervical malignant condition for the last six years. We had one case, a cauliflower type of cervical carcinoma, that, at my suggestion, was treated seven years ago, with massive doses of radium, by Duncan, of Los Angeles. Seemingly, a thorough cure resulted. Two years subsequently, or five years ago, there was a slight rectal recurrence. The patient was returned to Dr. Duncan, and a left lateral colostomy was done, and radium emanation inserts were made into the broad ligament and perimetrium of the uterus, ample to secure four thousand millicurie hours. This patient has a recto-vaginal fistula, but has gained over sixty pounds, and is seemingly a seven-year cure. Another case with like results stands as a six-year cure, with no secondary recurrence. This patient was also treated with massive doses of radium emanations in the cervical structures, intracervical and intraendometrial administrations—one massive dose.

The use of deep *x*-ray therapy presupposes the weighing of the age of the patient, the type and location of the tumor and its tissue relationships. Each case should be individualized, so that the *x*-ray dosage can be varied, after weighing every feature. No fixed dosage can be estimated; the arbitrary standardization of carcinomatous or sarcomatous dosage is as fallacious and inaccurate as it would be in medicinal therapy in other human diseases and conditions.

Deep short-wave *x*-ray therapy with a water-cooled Coolidge tube, using 40 milliamperes and from 230 to 250,000 volts, must necessarily be accurately dosed to be of advantage. Either Frederick's iontoquantimeter or Seemann's spectograph should be used by the laboratory giving the treatments, so that the exact dosage may be known. The indiscriminate administration of an improperly balanced dosage should be avoided. The use of the lower powered *x*-ray machine, with its necessarily longer wave lengths, is at present again gaining many an advocate. Radium gamma waves and the improved high-powered *x*-ray machine approximate one another; radium's former ten per cent advantage over the *x*-ray has been neutralized by the latter machine.

The use of preoperative and postoperative deep *x*-ray therapy has many advantages, and yet the work of Carter Wood shows the usual custom of giving deep *x*-ray therapy three, four, five days before operative procedure, to be fallacious. The raying of malignant transplants in animals followed by post-mortem examinations of the same, has shown that the afferent and efferent lymphatic tracts and blood vessels have not been affected by deep *x*-ray therapy until at least three weeks have passed. The preoperative blocking off of the lymphatics and the obliteration of the smaller blood vessels are undoubtedly advantageous in dealing with malignancy. The method that has been recommended, particularly in mammary carcinoma, is a preoperative *x*-ray treatment through many portholes, rapidly adminis-

tered to avoid the post-raying sickness, three weeks before the operation. This is followed by the usual block technique of the axillary area, fascial and fat removal over the recti and complete removal of the pectoralis major and minor, all of which is carried out previous to the separation of the mammary gland proper, with a ten-day subsequent postoperative radiation through multiple portholes. Radium as emanation, if available, or one of the radium salts in 25 millicuries or milligrams, with one m.m. of copper and four m.m. of rubber screening, radium located in a drainage tube in the axillary space, which is accurately moved by the nurse, one-half inch every two hours subsequent to the operation with complete removal within 48 hours, or the LeBarde's method of barrage by numerous emanation points, not exceeding 0.5 m.c. as to contents, separated 1½ cms., inserted in all the tissues, particularly the axillary space, supraclavicular areas, in fact, entirely surrounding the areas of surgical tissue removal. This method offers the best results in the corrective treatment of malignancy of the breast.

Adenocarcinomas of the ovary should be treated by aspiration of all fluid contents of the abdominal cavity, and the removal of the tumor proper by either the radium knife or the cherry red cautery blade. Cooley's results from the use of mixed streptococcus and bacillus prodigiosus serum in the spindle cell sarcoma, seem to indicate that in all probability the streptococcic invasion, a concomitant infection in practically all malignant conditions, can be met by one of the later antistreptococcic serums, like Dochez's. Many different intravenous agents have been tried against malignancies such as various colloid preparations of silver and copper and Wassermann's eosin-selenium, all of which, though theoretically correct, have been therapeutically unsuccessful.

There remains the use of diathermia, which means the use of the monopolar or bipolar currents of the diathermic or endothermic machine. When one utilizes the Ouidin's monopolar current, the nicest bit of discrimination in the way of dessicating structures can be carried out. Given a high-frequency machine of the better type, with an understanding on the part of the operator as to the action of the current, one but needs a cambric needle and the use of this monopolar current to deal with even ulcers upon the conjunctiva, or superficial conditions such as leukoplakia of the tongue, or even basal cell or squamous cell epitheliomas of the face, in a successful and cosmetic manner. This current produces a mummifying necrosis of all cells. It is not, in any sense, a cautery, the latter being a superficial heat agent. Dessication as well as coagulation is brought about by the production of heat by the resistance of the tissue of the structures being dealt with, to the passage of the electric current. The coagulating current is a bipolar d'Arsonval electric current from the high frequency machine. An indifferent electrode, preferably eight by ten inches, is placed over the buttocks or the abdomen, and the opposite electrode connected with a darning or knitting needle insulated with a small rubber tube, except that part to be inserted within the tissue to be coagulated. The dessicating current can either produce its therapeutic forces by sparking the pathological point or by inserting the cambric needle into the tissues wished to be destroyed. This dehydrates the cells, and it is preferable in treating epitheliomas of the lips, nose, cheek or forehead, that no protection should be used subsequent to the treatment, but the area should be exposed to the air and sunlight.

The coagulating current is ideal in dealing with the mixed basal or squamous cell epitheliomas. The theory that all epitheliomas from the upper lip upward are necessarily basal-celled, has been proven incorrect. A large percentage of them are mixed basal and squamous celled, or simply squamous-celled malignancies. The use of the coagulating current has not been adopted by the average surgeon as it should have been. W. L. Clarke's work in Philadelphia, and Doyen's work in Paris, have frequently been classified along with the work of de Keating-Hart. The de Keating-Hart current is a distinct, separate current, a fulgurating agent. But the monopolar current adopted by Clarke and the bipolar adopted by Doyen, are dependent upon the number of interruptions occurring in the current, which may be anywhere from 300,000 to 1,250,000 per minute in the higher forms of the coagulating current.

The newer radio-knife current utilizes radio tubes, three in series, through which the current passes, giving an interruption of 1,500,000, and producing in the knife blade a cauterizing effect that separates the tissues without producing a postoperative necrosis that will prevent primary healing. The radio-knife or coagulation method, in my opinion, should be used in biopsis. The possibility of infiltrating the surrounding tissues or of dissemination by metastasis of cancer cells should be combated in every way possible. In using the technique that is proposed in dealing with squamous or basal cell

epitheliomas of the face, one should coagulate the rim, or dessicate the surrounding areas in close proximity to the cancerous condition by either the mono or bipolar current, and then remove the specimen. The primary coagulating or dessicating environmental technique blocks the afferent and efferent lymphatic streams, and occludes the blood-vessels so that specimens can be removed with impunity. If the area that is to be removed is in the deeper surfaces, like the cervix, it can be blocked off entirely with the coagulation needle, leaving ample tissue for pathological investigation, without any fear of disseminating the malignant condition. The use of methylene blue (after the German technique of many years ago) in sloughing and odoriferous pathological conditions about the cervix or breast, should not be forgotten. From two to ten per cent alcoholic basic fuchsin should be tried; basic fuchsin has a marked fibrotic effect upon lymphatic efferent and afferent streams, and upon capillary vessels. Investigations of tissue changes subsequent to its use in infective cervical conditions have demonstrated to me the possibilities of its use in superficial, cervical, and even in fundal malignant inoperable conditions.

James Heyman, reporting the results of the use of radium in carcinoma of the cervix uteri at the Radium Home, Stockholm, Sweden, covering ten years with a one hundred per cent follow-up of 66 cases, covering all types, reports 33⅓ per cent as clinically healed after five years.

TABLE I.

RESULT OF RADIUM TREATMENT IN OPERABLE CASES (INCLUDING BORDER LINE) OF CARCINOMA OF THE CERVIX.

Year	No. of Cases	Time of Observation	Symptom-Free No. of Cases	Per Cent
1914–18	36	5 years	14	40.5
1919	23	4 years	11	47.8
1920	40	3 years	24	60.0
1921	48	2 years	28	58.3

Epithelial conditions, particularly of the squamous cell type, should be dealt with, if minute, by means of dessication; if more widely disseminated, by coagulation. Cancers of the tongue should be treated primarily by ligation of the external carotids, then by coagulation, and then by immediate removal. Recurrent malignancies of the maxillaries, particularly the superior maxillary, can be destroyed by coagulation, without any fear of dissemination. I have removed one-half of a superior maxillary by coagulation, the patient, a 73 year old woman, who is still alive, after three years. Carcinomas of the cervix, early, borderline or late, are distinctly radium types of cases, and the radium to be used in massive doses, properly screened, with the bladder empty, maintained so by retention catheter, and with a preliminary emptying of the rectum and colon and a rectal tube to carry off the gases. The bladder and rectum should be carefully packed away by means of gauze, Burnam's twenty-dollar gold piece or ample lead, or any sufficient method of screening the area. In early cases of fundal carcinoma, complete hysterectomy is advisable; in late cases, the abdomen should be opened and innumerable inserts of radium emanation of one millicurie each, scattered widely through the tissue, followed by postoperative deep *x*-ray therapy of the massive type, with Frederick's iontoquantimeter or Seemann's spectograph measurement of wave-lengths.

The belief on the part of medical men that cancer is primarily a localized condition, and that if recognized at that period could be successfully dealt with surgically, has been widely accepted. Belonging to the triad neoplastic group, two of whose members, tuberculosis and syphilis, have been etiologically elucidated, cancer, though macroscopically similar and with tissue changes similar in many ways to the other two, defies as yet a world-wide, earnest student body.

Hoffman, in his summary of cancer, mainly from the statistical angle, comments after personal investigation of Indians in Peru and Bolivia, and the Zunis and Navajos of the United States, that malignancy does not occur among those primitive people who live out of contact with civilization. This observation should be thoughtfully weighed, when one studies the cause of cancer. Febiger's cockroach studies in and about Copenhagen, and Sambon's studies of the same pest's presence in great numbers in the province of La Romagna, Italy, where cancer exists in one out of every 500 inhabitants, both noted and traced this insect's host abilities in the transmission of cancer in rats. Febiger isolated a nematode and an organism constantly present, which he denominated spiroptera neoplastica, and Sambon found a coccidia.

Such observations lead one to infer that there must be an intermediary host, whose habits and existence is in and about the habitations of a civilized people. Papered walls, crevices and crannies and hiding places around drain pipes and sinks of civilized habitations, particularly in old buildings, are the breeding places and home of cockroaches. The meal arks of the houses of the citizens of La Romagna were overrun with meal mites and cockroaches. The primitive place and living quarters of the uncivilized are not

of the permanent type of the civilized. Cockroaches and meal mites and kindred insects are an accompanying pest of a civilized people, and of a civilized people only. Such observations lead one to wonder.

It seems tenable to state that when discovered, the cause of cancer will prove to be a specific organism, symbiotic in action and varying in form, such variation inducing the known difference as to malignant developments.

Probably soon, a new Ehrlich may, with a new combination of stains, suggest to another Koch or Schaudinn or Hoffman, a dye for which the as yet resistant organism of cancer will have a tinctorial affinity. Then, and not until then, will occur in an etiological, diagnostic or treatment sense, the millenium of medical men's knowledge of malignancy.

MISCELLANEOUS

ZINC STEARATE DUSTING POWDERS FOR INFANTS.

The second report of the Committee on Accidents from Zinc Stearate Dusting Powders appointed by the Board of Trustees of the American Medical Association has recently been published. Copies of this report, with an appendix showing the opinions of thirty-four representative pediatricians on the therapeutic value of such powders, can be obtained on request. Address, Committee on Zinc Stearate Dusting Powders, American Medical Association, 535 North Dearborn Street, Chicago, Illinois, enclosing a self-addressed stamped envelope.

There were reported to the committee 131 accidents from the inspiration of zinc stearate dusting powders by infants. Twenty-eight of the victims died. The committee conferred with representatives of certain distributors concerning the dangers incident to the use of such powders on infants. Following a meeting held at the headquarters of the American Medical Association, these distributors agreed to coöperate by adopting self-closing containers for the powders they distribute and agreed that cautionary labels are desirable. Opinions were secured from thirty-four representative pediatricians concerning the therapeutic value of zinc stearate dusting powders. Thirty-one believe that such powders have no advantage over other dusting powders, that they constitute a hazard to infant life, and that their use should be discouraged.

FROM PRESIDENT-ELECT WILLIAM KEILLER

To The Editor:

I greatly regret that I had left Austin before the announcement was made that the State Medical Association had chosen me as President-Elect. I had not the slightest idea that any such selection was contemplated, or I should have waited the issue.

I, therefore, take this method of expressing to the Association my very sincere appreciation of the honor they have conferred upon me. I value greatly this appointment as endorsing the School of Medicine, which I represent, and my thirty-four years' work in the State of Texas.

My chief feeling at present is rather an overwhelming sense of the responsibility. I shall do my best to occupy this responsible position to the honor of the profession and the furtherance of the cause of the medical profession and the health problems of the people of the State.

Cordially yours,

William Keiller.

AMERICAN ELECTROTHERAPEUTIC ASSOCIATION.

The American Electrotherapeutic Association will hold its 35th Annual Session, September 15 to 18, at the Hotel Drake, Chicago, Ill. Papers will be read by the leading men in the field of physical therapeutics and by invited guests of national reputation. A demonstration of actual technic of application of the various physical modalities will be given. There

THE 1925 POSTGRADUATE CLASS OF BAYLOR UNIVERSITY COLLEGE OF MEDICINE

Drs. W. O. Brown, *San Benito;* M. W. Rogers, *Rule;* Oscar Huff, *San Marcos;* L. A. Colquitt, *Waskom;* P. D. Robason, *McKinney;* J. T. Mantooth, *Altoga;* S. C. Millen, *Gunter;* D. C. Hyder, *Memphis;* D. O. Jeter, *Murchison;* W. O. Padgett, *Graham;* E. O. Moore, *Midlothian;* C. B. Townes, *Tahoka;* Melvin Hutchenson, *Ryan, Oklahoma;* C. E. Davis and T. D. Ford, *Linden;* W. H. Eagle, *Talco;* W. A. Carroll, *Claude;* T. W. Buford, *Minter;* D. K. Jamison, *Denison;* John Tyson, *Cross Plains;* E. W. Burnett, *Carrollton;* H. H. Leeman, *Windom;* P. D. Reynolds, *Rosewood;* E. C. Bills, *Quinlan;* J. E. Wilson, *Lancaster;* J. W. Young, *Roscoe;* R. C. Youngblood, *Falls City;* J. O. Wharton, *Duncan, Oklahoma;* M. A. Toms, *Crockett;* F. D. Sims, *Abbott;* W. F. Perkins, *Grapevine;* H. H. Key, *Jacksboro;* J. H. Paxton and W. E. Davis, *Elkhart;* E. B. Stokes, *Crockett;* W. J. McGowan, *Paducah;* W. D. Black, *Barstow;* W. M. Meadows, *Mabank;* J. G. Daniels, *Gilmer;* A. C. Corry, *Farmersville;* J. R. Sessums, *Dublin;* S. L. Wadley, *Palmer;* C. Moore, *St. Jo;* H. H. Inzer, *De Leon;* B. H. Burnett, *Duncan, Oklahoma;* L. F. Crook, *Bellevue;* T. J. Caldwell, *Mission;* P. W. Pearson, *Emory;* J. H. Herndon, *Garland;* J. C. Loveless, *Lamesa;* J. J. Ingram, *Decatur;* A. F. Popplewell, *Fort Worth;* H. N. Lusk, *Bartlett;* E. L. Hailey, *Celina,* and B. L. Jenkins, *Clarendon.*

will be a complete exhibit of the latest electrotherapeutic apparatus and accessories. All legally licensed physicians are welcome. Program can be obtained by addressing Dr. Richard Kovacs, secretary, 223 68th street, New York City.

AMERICAN BOARD OF OTOLARYNGOLOGY EXAMINATIONS.

An examination was held by the American Board of Otolaryngology on May 26, 1925, at the Medico-Chirurgical Hospital, Philadelphia, with the following results: Passed, 137; failed, 20; total number examined, 157.

The next examination will be held at the University of Illinois School of Medicine on October 19, 1925. Applications may be secured from the secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Poison Ivy Extract-Lederle (In Almond Oil).—A solution in almond oil of a substance extracted from the fresh leaves of poison ivy (Rhus toxicodendron). The preparation is used to desensitize persons against poisoning with Rhus toxicodendron and to relieve the symptoms of the dermatitis produced by contact with the plant. It is injected intramuscularly. The preparation is supplied in syringes containing 1 Cc. Lederle Antitoxin Laboratories, New York.

Pollen Extracts-Mulford — The following pollen extracts-Mulford (New and Nonofficial Remedies, 1925, p. 285), are marketed in 5 cc. vials containing 250 units per cc.: Ash tree pollen extract-Mulford; Bermuda grass pollen extract-Mulford; box elder pollen extract-Mulford; canary grass pollen extract-Mulford; cocklebur pollen extract-Mulford; corn pollen extract-Mulford; cottonwood tree pollen extract-Mulford; daisy pollen extract-Mulford; dandelion pollen extract-Mulford; dock pollen extract-Mulford; false ragweed pollen extract-Mulford; goldenrod pollen extract-Mulford; Johnson grass pollen extract-Mulford; June Grass pollen extract-Mulford; maple pollen extract-Mulford; marsh elder pollen extract-Mulford; mountain cedar pollen extract-Mulford; Mugwort pollen extract-Mulford; oak tree pollen extract-Mulford; orchard grass pollen extract-Mulford; perennial rye grass pollen extract-Mulford; plantain pollen extract-Mulford; redroot pigweed pollen extract-Mulford; redtop pollen extract-Mulford; Russian thistle pollen extract-Mulford; rye pollen extract-Mulford; sagebrush pollen extract-Mulford; sugar beet pollen extract-Mulford; sunflower pollen extract-Mulford; sweet vernal grass pollen extract-Mulford; sweet vernal grass pollen extract-Mulford; walnut tree pollen extract-Mulford; western ragweed pollen extract-Mulford.

The following pollen extracts-Mulford are marketed in 5 cc. vials containing 250 units per cc. and in treatment sets consisting of series A, doses 1 to 5; series B, doses 6 to 10; series C, doses 11 to 15, and complete series, doses 1 to 15, inclusive; lamb's quarters pollen-extract-Mulford and wormwood pollen extract-Mulford. H. K. Mulford Co., Philadelphia. —*Jour. A. M. A.*, June 6, 1925.

Pollens Dried-Mulford. — The dried pollen of various species of plants. Pollens dried-Mulford are intended for diagnosis only (Allergic Protein Preparations, New and Nonofficial Remedies, 1925, p. 278). A small amount of the dried pollen is rubbed into an abrasion of the skin to which has been applied a drop of physiological solution of sodium chloride or of tenth-normal sodium hydroxide solution. An urticarial wheal appearing within a half hour from the time of application indicates a sensitiveness to the particular pollen used. Pollens-dried-Mulford are marketed in packages of one capillary tube containing a sterile needle and sufficient pollen for one test; in packages of six capillary tubes and in vials containing 0.05 gm. of pollen.

The following have been accepted: Ash tree pollen dried-Mulford; Bermuda grass pollen dried-Mulford; box elder pollen dried-Mulford; canary grass pollen dried-Mulford; careless weed pollen dried-Mulford; cocklebur pollen dried-Mulford; cocklebur pollen dried-Mulford; corn pollen dried-Mulford; cottonwood pollen dried-Mulford; daisy pollen dried-Mulford; dandelion pollen dried-Mulford; dock pollen dried-Mulford; false ragweed pollen dried-Mulford; goldenrod pollen dried-Mulford; high ragweed pollen dried-Mulford; false ragweed pollen dried-Mulford; June grass pollen dried-Mulford; lamb's quarters pollen dried-Mulford; low ragweed pollen dried-Mulford; maple pollen dried-Mulford; marsh elder pollen dried-Mulford; mountain cedar pollen dried-Mulford; mugwort pollen dried-Mulford; oak tree pollen dried-Mulford; orchard grass pollen dried-Mulford; perennial rye grass pollen dried-Mulford; plantation pollen dried-Mulford; redroot pigweed pollen dried-Mulford; redtop pollen dried-Mulford; Russian thistle pollen dried-Mulford; rye pollen dried-Mulford; sagebrush pollen dried-Mulford; shad scale pollen dried-Mulford; sheep sorrel pollen dried-Mulford; slender ragweed pollen dried-Mulford; sugar beet pollen dried-Mulford; sunflower pollen dried-Mulford; sweet vernal grass pollen dried-Mulford; timothy pollen dried-Mulford; velvet grass pollen dried-Mulford; walnut tree pollen dried-Mulford; western ragweed pollen dried-Mulford; wormwood pollen dried-Mulford. H. K. Mulford Co., Philadedphia.

Typhoid Vaccine-P. D. & Co.—(New and Nonofficial Remedies, 1925, p. 363). This is also marketed in packages of thirty ampules, ten containing 500 million and twenty containing 1,000 million killed typhoid bacilli each. Parke, Davis & Co., Detroit.

Typhoid Paratyphoid Vaccine-P. D. & Co.—(New and Nonofficial Remedies, 1925, p. 363). This is also marketed in packages of thirty ampules, ten containing 500 million killed typhoid bacilli, 375 million killed paratyphoid A and 375 million killed paratyphoid B bacilli, and twenty containing 1,000 million killed typhoid bacilli, 750 million killed paratyphoid A and 750 million killed paratyphoid B bacilli. Parke, Davis & Co., Detroit.—*Jour. A. M. A.*, June 13, 1925.

Stovarsol.—Acetylaminohydroxyphenylarsonic Acid. Stovarsol contains from 27.1 to 27.4 per cent of arsenic. Stovarsol has been reported to produce favorable effects in the treatment of amebic dysentery. It is claimed to yield satisfactory results, both in the eradication of dysenteriae cysts and encysted flagellates and for general amebic dysentery. Stovarsol is not proposed for the treatment of syphilis and its use in amebic infections is still in the experimental stage. Stovarsol is supplied in tablets containing 0.25 gm. Powers-Weightman-Rosengarten Co., Philadelphia.

Rhus Tox. Antigen (Strickler).—A solution of a substance extracted from the fresh leaves of Rhus toxicodendron. Rhus tox. antigen (Strickler) is used to determine sensitiveness to Rhus toxicodendron, to desensitize persons against poisoning with Rhus toxicodendron, and to relieve the symptoms of the dermatitis produced through contact with the plant. Rhus tox. antigen (Strickler) is supplied in packages of four 1 cc. vials for use in prophylaxis and treatment and as rhus tox. dermal test in packages

of a 1 cc. vial (accompanied by a vial of rhus venenata dermal test) for use in determining sensitiveness. American Chemical Laboratories, Philadelphia.

Rhus Venenata Antigen (Strickler).—A solution of a substance extracted from the fresh leaves of rhus venenata. Rhus venenata antigen (Strickler) is used to determine sensitiveness to rhus venenata, to desensitize persons against poisoning with rhus venenata, and to relieve the symptoms of the dermatitis produced through contact with the plant. Rhus venenata antigen (Strickler) is supplied in packages of four 1 cc. vials for use in prophylaxis and treatment, and as rhus venenata dermal test in packages of a 1 cc. vial (accompanied by a vial of rhus tox. dermal test) for use in determining sensitiveness. American Chemical Laboratories, Philadelphia.—*Jour. A. M. A.*, June 27, 1925.

PROPAGANDA FOR REFORM.

Geroxide (Germanium Dioxid) Not Accepted for N. N. R.—The Council on Pharmacy and Chemistry reports that under the proprietary name "Geroxide," the Germanium Products Co., Trenton, N. J., markets a solution of germanium dioxid. The solution is prepared by dissolving germanium dioxid in water and neutralizing the weakly acid solution of the germanic acid with sodium hydroxide and making it isotinic by addition of sodium chloride. The Germanium Products Co. claims that germanium dioxid acts as a powerful stimulant to the red bone marrow and that its use is indicated in primary and secondary anemias. These claims are based on one group of workers. Independent work which bears on the therapeutic worth of germanium dioxid has not confirmed the claims which are advanced for the drug. In consideration of the lack of evidence for the therapeutic value of germanium dioxid, the council voted not to accept Geroxide for New and Nonofficial Remedies on the ground that the claims made for it are unwarranted. This action was taken without passing on the question of the recognition of a proprietary name for a simple solution of the well known substance germanium dioxid.—*Jour. A. M. A.*, June 6, 1925.

NEWS

The Houston Medical Arts Building is to be a beautiful sixteen-story structure and will be erected at Walker and Caroline streets. The total cost of the building is estimated at about $2,000,000, according to the *Houston Chronicle.*

Texas Doctor Honored by American Life Convention.—Dr. J. T. Montgomery, Medical Examiner of the Southland Life Insurance Company of Dallas, has been elected to the Board of Managers of the Medical Section of the American Life Convention, and will automatically in three years, become Chairman of the Board of Control of the American Life Convention, the highest honor which can come to a life insurance company medical examiner.

Dr. Montgomery was born and reared in Fort Worth, and was a graduate of the Fort Worth School of Medicine.

The Texas State Dental Society, at their recent meeting at San Antonio, elected the following officers for the ensuing year: Dr. Trim Houston of Corsicana, president-elect; Dr. E. L. Williams of Houston, vice-president; Dr. J. F. Fife of Dallas, secretary-treasurer. Dr. W. H. Bourne of San Antonio, was elected a member of the Executive Committee for three years; Dr. E. F. Coyle of Orange, a member of the Dental Board for three years, and Dr. R. E. Huff of Wichita Falls, Chairman of the Clinic Committee for two years. Dr. A. L. Mygard of Dallas, was named to handle transportation to the national convention in Louisville.

Annual Meeting of Texas State Board of Dental Examiners was held at the Adolphus Hotel at Dallas, the evening of June 10, when the following officers were elected: Dr. Ralph C. Cooley of Houston, president; Dr. W. O. Talbot of Fort Worth, vice-president, and Dr. G. C. Baker of Kaufman, secretary-treasurer. The next meeting of the board will be held in Houston the second Monday in December.

Ninety applicants took the State Board examinations on June 8 and 9. In connection with the board meeting, practical demonstrations were given at the free dental clinic at the Baylor College of Dentistry.

The $1,000,000 Methodist Hospital at Fort Worth was formally dedicated on July 1. Quite a large and representative audience, including many prominent visitors from over the State, witnessed the laying of the cornerstone of this great humanitarian institution. It will be recalled that the citizens of Fort Worth contributed $500,000 for the erection of this magnificent hospital, which was matched by a like amount contributed by the Methodists of the Central Texas Conference. The hospital is nine stories high, and is being constructed on the "orientation" plan, providing exposure both to fresh air and sunshine. An unusual feature will be the installation in each room of a radio for the entertainment of the patient.

Dr. Exton Made President-Elect of American Society of Clinical Pathology.—At the recent session of the American Society of Clinical Pathology, at Philadelphia, Dr. William G. Exton, Director of the Prudential Insurance Company's Longevity Service and Laboratory, was selected as the President-Elect. Dr. Exton has been connected with the Prudential since 1914 and has developed this company's technique for accuracy and rapidity in making urinalyses to meet the demands of between 50,000 and 60,000 policyholders a year. In this connection, he devised the "scopometer" for measuring the turbidity of body fluids, and the "euscope." He has also perfected a number of rapid laboratory tests. The Longevity Service directed by him works in conjunction with the family or personal physicians of the policyholders who are found to require attention.

Texas State Veterinary Association which met at College Station, closed its annual session with a banquet on the evening of June 17. Prominent veterinarians who participated in the program were Drs. J. C. Flynn of Kansas City; J. G. Horning of Houston, and N. F. Williams of Fort Worth, State Veterinarian. The following officers were elected for 1926: Dr. W. R. Sanderson of Brownwood, president; Dr. U. E. Marney of San Antonio, first vice-president; Dr. Raymond Childers of Beaumont, second vice-president, and Dr. D. Pearce of Leonard, secretary- treasurer.

A resolution of appreciation was adopted commending Dr. W. B. Bizzell, president of the A. & M. College, for establishing in that institution "a creditable veterinary course, which is a tribute to the greatest agricultural State in the Union." The Dallas News was commended for its service to the public in publishing facts concerning animal diseases detrimental to the public health.

SOCIETY NEWS

Bexar County Medical Society met May 14, with 60 members in attendance.

Dr. J. W. Goode reported the case of a Mexican woman, aged 20 years, who had had an abscessed

tooth extracted about three months previously and 8 days later there was a sinus opening under the chin and the swelling of the face and neck was enormous. Free drainage was instituted with a decrease in the swelling, but a radiogram showed almost complete destruction of the lower jaw at the site of the extracted tooth. Dr. Goode also reported the case of a colored man whose foot had been caught in a rope and who had been dragged by a mule. When entering the hospital some time later he had a complete dislocation and fracture of both tibia and fibula at the ankle joint with considerable destruction of the soft parts. Several pieces of bone were removed, a cast applied, and the infection nearly cleared up. It is hoped that ankylosis in fair position can be secured.

Dr. Albert Stieler had seen several cases similar to the first reported by Dr. Goode and considered it unfortunate that the patient generally waits until a considerable portion of the bone is destroyed before consulting a doctor.

Dr. Edwin Mueller thought that the result achieved in the second case reported by Dr. Goode was good considering the length of time the patient had waited before entering the hospital.

Dr. Goode, in closing, thought that enough periosteum was left in the first case reported to eventually secure a bony union, but that the teeth would all be lost.

Dr. J. A. Nunn presented the case of a Mexican boy, aged 5 years, who had been admitted to the hospital on May 9, with the history of having developed sudden paralysis of the right leg 4 days previously, while playing in the yard. There was some pain in the right hip and calf. He had very little temperature, and complained of nothing. Examination showed a well developed boy unable to sit up, with stiff neck but normal pupils. There was almost complete flaccid paralysis of the right leg, and partial loss of power in the quadriceps extensor of the left leg, with partial loss of strength in the right deltoid and biceps. The biceps, triceps and pronator reflexes were normal but there was complete loss of the knee jerk and cremasteric reflexes on the right side. The temperature never exceeded 100° F., and there was no pain except when being handled, the urine, blood and blood Wassermann were negative. The spinal fluid was under slightly increased pressure and contained 30 lymphocytes per c. mm. There was no increase of globulin. The diagnosis of anterior poliomyelitis had been made. The Rosenow serum is supposed to give good results as a prophylactic but since there are so many abortive cases it is hard to tell just what the serum can do curatively. Prognosis in the case reported is fair and this case is now going to be turned over to the orthopedic service.

Dr. S. R. Kaliski stated that the case reported by Dr. Nunn did not start with convulsions, but greatly resembled post-diphtheritic paralysis and lead-poisoning, both of which could be ruled out. The head drop in these cases is due to tenderness along the erector spinae.

Dr. Mary C. Harper reported having seen a similar paralysis following chicken-pox.

Drs. J. W. Goode and Thos. Dorbandt, both stressed the importance of splinting the affected limbs in order to relieve the strain on the paralyzed muscles.

Dr. Lee Rice reported the case of an elderly white man in a poor general condition. He had had the usual diseases of childhood and had contracted gonorrhea when a boy but had never had chancre, or any other serious illness. The patient stated that about a year ago he had felt bad and had taken sulphur, and that this had caused the spots that were on his skin. He also stated that he had eczema on his hands and feet. About two weeks previously, he began to be bothered with a diarrhea. Physical examination showed an emaciated, elderly white man with very dry skin. The right pupil was larger than the left. The teeth were in bad condition. The liver was slightly enlarged. The skin was very dry, and there was a discoloration in patches over the entire body. There was a serpiginous ulcer on the right leg and ulcers on the right foot. The tongue was red at the tip, atrophic and slick. The knee-jerks were gone and the lower limbs spastic. The stools were negative, both for parasites and ova; the urine was normal, and the spinal-fluid Wassermann was negative, also the colloidal-gold test. The blood count showed hemoglobin 65 per cent, erythrocytes 3,232,000, and leucocytes 14,800 with 72 per cent of the polys. The spinal fluid was clear, not under pressure and showed a cell count of 10. Dr. Rice stated that he believed the ulcers and the skin eruption were due to tertiary syphilis. He thought that the diarrhea might be considered as an early pellagra.

Dr. J. A. McIntosh thought that the patient was suffering from pellagra and tertiary lues, and that the therapeutic test should be made.

Dr. L. J. Manhoff thought that a tuberculous bowel should be ruled out in this case.

Dr. Thomas Dorbandt thought that the patient had syphilis, but that the pellagra was the cause of his present trouble and that he should be treated with sodium cacodylate, and general hygienic measures.

Dr. W. S. Hanson thought that the case was one of lues and that the bowel trouble was due to digestive disturbances.

Dr. Rice, in closing, stated that he believed that many old luetics get well without treatment. He believed that pellagra was due to what happened to food after it had been ingested.

Dr. W. H. Hill reported the case of a young woman about 20 years of age, who had been delivered of a full term child about the middle of April by a midwife. On admission to the hospital on May 7, she had fever and had been vomiting for five days, and had a foul vaginal discharge. She had lost consciousness at the time of admittance to the hospital. Physical examination revealed a well nourished Mexican woman who was unconscious, the right pupil was widely dilated. On admission the pulse was feeble and the patient cyanotic, but after 20 grains of camphor-in-oil had been given, the pulse came down to 100. The Babinski, Gordan, Oppenheim, and Chaddock reflexes were present, and there was ankle clonus, more marked on the left. The Kernig was negative and abdominal reflexes absent. The spinal fluid was under great pressure and the cell count increased but no organisms were found. The temperature on admission was 101° F., and increased steadily until at the patient's death it had reached 103.6° F. Autopsy revealed a dilated colon and albuminous and fatty degeneration of the liver. There was a mild infection of the uterus at the placental site. The anterior half of the right cerebral hemisphere showed a softening, and the blood vessels were congested. The left hemisphere showed small areas of necrosis near the median line, with early brain softening. There were also small hemorrhagic areas throughout the brain and a white thrombus extending the entire length of the longitudinal sinus and into all its branches. The diagnosis was encephalomalacia of the right cerebral hemisphere due to thrombosis of the longitudinal sinus as a result of uterine infection.

An invitation from the Woman's Auxiliary, inviting the members of the society to join them in their annual picnic at Koehler's park was read.

Bexar County Medical Society met May 21, with 38 members and two visitors present.

Mr. Yandell, secretary of the San Antonio Chamber of Commerce, was introduced to the society and spoke of the relationship that should exist between the Medical Society and the Chamber of Commerce.

Dr. T. B. Askew read a paper entitled "The Diagnosis of Iritis Based on the Pathology."

The discussion of this paper was opened by Dr. J. H. Burleson, who stated that he knew of no disease that was more often incorrectly diagnosed and in which the consequences of improper treatment were more terrible. Since the family physician is usually the first to see these cases, he should recognize that any inflammatory condition of the eyeball in which there was photophobia with a little discharge might be iritis, and that iritis is not a disease entity but merely symptom and often associated with such systemic diseases as lues, gout, diabetes, gonorrhoea, tuberculosis, rheumatism, etc. If not recognized and properly treated, the vision may be lost within from 5 to 10 days.

Dr. E. M. Sykes stated that the surgeon very often sees these cases only after they have gone too long for satisfactory treatment to be effected. Iritis and glaucoma must be differentiated in these cases.

Dr. J. S. Steele said that conjunctivitis can usually be diagnosed by the excessive secretion and the tendency of the lids to adhere to each other, but that a watery eye with no pus should make one suspicious of iritis, in which case the specialist should be consulted.

Dr. Eldridge Adams stated that in any eye showing negative tension iritis should always be considered.

Dr. O. J. Potthast read a paper on "The Coffey Quarantine Pack Method of Abdominal Drainage: Its Description and Remarks on the Principles Upon Which it is Based and Its Application."

Dr. Dudley Jackson stated that he had been struck by the method of drainage advocated by Dr. Coffey and that this method evidently quarantines off the rest of the abdomen. He did not believe the old hard rubber drainage tubes should be used.

Dr. L. B. Jackson stated that he was glad to hear the essayist stress the fact that the danger of hernia could be reduced by keeping the patient in bed for a long time. The coöperation of the patient is not always easy to secure, however. He asked the essayist if there was any difficulty in keeping track of the many pieces of gauze, and what method of fastening same was employed.

Dr. Cole Kelley thought that the Coffey method had great possibilities. He had always thought the practice of letting the intestines come in contact with the infected area was a bad one, and he preferred cigarette drainage to rubber tube.

Dr. R. S. Adams had recently seen a case of double tube-ovarian abscess, the patient having a temperature of 104° F. at the time of operation, in which the essayist had used this method of drainage and the temperature did not rise above normal at the end of 48 hours. On the sixth day, the 18 gauze wicks used were very carefully removed, the whole procedure taking from 5 to 6 minutes.

Dr. Potthast, in closing, stated that the method of drainage advocated by Dr. Coffey was quite applicable to the appendiceal region. He stated that the wicks of gauze were carefully counted while being inserted and that a safety pin was passed through all of them, and a notation made on the chart as to the number of wicks inserted so that the count could be verified when they were removed. He then showed some lantern slides prepared by Dr. Coffey, which showed the importance of the Fowler position in cases of abdominal infection.

Cameron County Medical Society met June 18, at Harlingen. There were 20 members present.

Dr. M. W. Sherwood of Temple, read a paper on "Cancer of the Uterus," which was discussed by several of the members present.

Cherokee County Medical Society met May 26, at the Nurses' Home of the Cherokee Hospital, at Jacksonville, with the following members and visitors in attendance: Drs. J. M. Travis, R. T. Travis, F. A. Fuller and S. S. Rather, Jacksonville; G. W. Barnett, Gallatin; W. T. Greenwood, Lone Star; A. L. Hathcock, A. A. Speegle and C. F. Card, Palestine; J. B. Braly and A. S. Jarvis, Troup; J. T. Johnson, R. C. Priest, T. H. Cobble and Smith, Rusk; W. E. McDonald, Alto; Fred Fuller, Kemp; J. E. Watkins, R. F. Shaw and D. P. Richardson, Henderson; J. A. Birdwell, Overton; E. A. Sweatland and W. W. Dunn, Lufkin.

Interesting papers were read by Drs. A. L. Hathcock and J. M. Travis.

At 6:30 p. m. a banquet was served the society at Tucker's Cafe, with Dr. J. B. McDougle acting as toastmaster.

Speeches were made by Mayor T. E. Acker, Mr. J. L. Brown and by Drs. A. L. Hathcock, T. H. Cobble and A. E. Sweatland.

Dallas County Medical Society met May 28 at 8:00 p. m. in the auditorium of the Nurses Home, Parkland Hospital, with 80 members present. There being no clinical cases reported, the following scientific program was rendered:

1. Fractures About the Orbit (illustrated with lantern slides), by Captain Wm. D. Gill, M. C., Station Hospital, Fort Sam Houston. This paper was discussed by Dr. W. D. Jones.
2. The Surgical Treatment of Trifacial Neuralgia, by Dr. W. O. Ott, Fort Worth, Texas.

This paper was discussed by Drs. A. D. Hardin, S. D. Weaver, John S. Turner, F. H. Newton, J. M. Coble, Geo. Carlisle, and W. D. Jones.

A rising vote of thanks was extended to Dr. E. H. Cary for his successful efforts in bringing the A. M. A. to Dallas in 1926.

Mrs. Rice Jackson extended an invitation to all members of the Society, to a lawn party to be given by the Woman's Auxiliary on June 10th, at the home of Dr. and Mrs. Bourland, 4900 Swiss avenue.

Upon the request of the mayor of Dallas, the following doctors were selected by ballot by the society for membership on the hospital board: Non-school group—Drs. A. W. Nash, J. S. Calhoun, F. A. Pierce, T. C. Gilbert and J. S. Turner; Baylor Medical College group—Drs. J. J. Terrill, M. S. Seely, J. B. Smoot and W. W. Shortal.

Dallas County Medical Society met June 11, in the auditorium of the Medical Arts building.

Dr. W. D. Jones reported four cases of mastoiditis with streptococcus hemolyticus infection, the smear having been taken from a pure culture made from the mastoid cells.

Dr. W. W. Fowler reported a case of a basal cell carcinoma of the septum, in a lady thirty years of age.

Dr. H. I. Gosline reported the case of a child with epilepsy, probably due to sympathetic hypotonia accompanying renal insufficiency.

Dr. C. O. Bailey read a paper on Radium Energy As a Therapeutic Agent, which was discussed by Drs. R. H. Milwee and C. L. Martin.

DeWitt County Medical Society met at Yorktown, June 17, with the following members present: Drs. H. C. Eckhardt, L. W. Nowierski, C. L. Oauin, J. W.

Hale, C. A. Arnecke, G. W. Allen, Jr., and B. J. Nowierski.

The following visitors were in attendance: Drs. Dudley Jackson, J. Manning Venable, R. N. McCorkle, C. F. Lehman and S. P. Cunningham, of San Antonio; J. W. Gray, of Yoakum; F. B. Fruholz, of Nordheim, and G. W. Cross, of Yorktown.

A Mexican lunch was served the society at the home of Dr. B. J. Nowierski, and at 8:30 p. m. the following scientific program was rendered:

"Cancer of the Rectum," by Dr. Dudley Jackson, San Antonio; "Home Treatment of Pulmonary Tuberculosis," by Dr. R. H. McCorkle, San Antonio; "Carcinoma of the Prostate," by Dr. J. Manning Venable, San Antonio; "Treatment of Ring-Worm of the Scalp," by Dr. C. F. Lehman, San Antonio.

Dr. J. W. Hale made a report for a committee upon which he had been appointed, which committee had conferred with a similar one from the Lavaca County Medical Society, that agreement had been made that the two societies should hold 10 joint meetings through the year, four at Yoakum, four at Cuero, one at Hallettsville and one at Yorktown, with no meetings in July and August. The next meeting of the society will, therefore, be a joint meeting with the Lavaca County Medical Society at Yoakum.

El Paso County Medical Society met May 18, with 25 members and 2 visitors present.

Dr. W. W. Britton read a paper on "Tuberculosis of the Cervical and Thoracic Glands." He discussed the probable mode of infection and the methods of diagnosis and treatment, placing particular emphasis on building up the general condition of the patient in addition to other measures that might be instituted. This paper was discussed by Drs. C. M. Hendricks, Harry Leigh, W. G. Werley, B. B. Homan, J. D. Riley, F. D. Miller and W. E. Vandevere. In these discussions the following points were brought out: *X*-ray diagnosis involving the tracheobronchial glands is often difficult to make until the lesion is well advanced. Diagnosis is made not only by the size of the glands, but by the shadow cast in the radiogram by blocking of the lymph. Soft stereoscopic plates are desirable. Recent studies of large numbers of enucleated tonsils show that tuberculous infection of the tonsils is not unusual. Tonsillectomy usually prevents further spread of the disease. Such cases should be followed up carefully, however, as these patients may develop pulmonary tuberculosis in later life. The intradermal tuberculin reaction appears to be most reliable. Tuberculin treatment of cervical adenitis seems to be of value in children and young adults. Surgical removal of these tuberculous lymph nodes is rendered more difficult by *x*-ray treatment. Surgery still has its place in the treatment of cervical adenitis, in spite of the advance in other methods of treatment.

Dr. John W. Tappan, surgeon, U. S. Public Health Service, read a paper on "Public Health Problems Along the Texas-Mexican Border." The paper discussed the problem of enforcing the quarantine laws along the 1,200 miles of the Texas-Mexican border. The success in this border work was attributed largely to the excellent coöperation afforded by the state, county and city health authorities.

Dr. C. M. Hendricks reported a case of pulmonary actinomycosis.

Dr. M. F. Bledsoe, of Port Arthur, the retiring president of the State Medical Association, was a guest of the society and made a brief address at the conclusion of the scientific program.

El Paso County Medical Society met May 25, with 21 members and one visitor present.

Dr. W. M. Branch read a paper on "Immunity in Lobar Pneumonia." He said statistics showed that there had been a considerable reduction in the occurrence of lobar pneumonia following the use of pneumococcus vaccine. He reported a series of 200 cases of pneumonia treated with vaccine during the past 6 years, without a relapse, complicating empyema or a second attack. He concluded that lobar pneumonia treated with vaccine carried with it an active immunity that lasted for 6 years and recommended revaccination at the end of that time. This paper was discussed by Drs. G. Werley and Turner.

Dr. W. E. Vandevere read a paper on "Sinus Infections: Etiology, Diagnosis and Treatment." This paper was discussed by Drs. W. J. Davis, J. B. Gray, Paul Gallagher, E. J. Cummins and Harry Leigh.

Falls County Medical Society met at Marlin on June 8, with good attendance.

Dr. L. O. Wilkinson read a paper on "Acute Encephalitis."

Dr. R. V. Alexander, of Waco, read a paper on "Empyema." Both papers were liberally discussed.

Grayson County Medical Society met in Sherman, May 12, at the St. Vincent's Sanitarium. The following members were in attendance: Drs. H. L. Brown, G. F. Brown, D. C. Enloe, B. A. Russell, A. L. Riding, Paul Gunby, J. A. L. Wolfe, A. M. McElhannon, G. E. Schenck, J. H. Caraway, R. R. May, Campbell, J. S. Dimmit, Murphy and G. E. Henschen of Sherman; and Drs. O. H. Miller, A. A. Blasingame, F. F. Fowler, D. K. Jamison, E. L. Seay, A. W. Acheson, A. G. Sneed, Arthur Glecker, M. M. Morrison, J. A. Rutledge, Meador, and W. A. Lee of Denison.

Dr. M. C. Murphy of Sherman, read a paper on "Ethylene."

Dr. D. C. Enloe of Sherman, read a paper on "A New Method of Producing Anesthesia in Obstetrics."

Dr. J. S. Dimmit of Sherman, reported a very interesting case in which a foreign body had been removed from a bronchus by means of the bronchoscope.

Hidalgo County Medical Society met July 3 at McAllen.

A delightful supper was served at the American Cafe, following which the society held their scientific program.

Dr. J. B. Lockhart of Pharr, read a paper on "Whooping Cough."

The Woman's Auxiliary was entertained during the meeting of the scientific program at the home of Mrs. F. E. Osborn.

Navarro County Medical Society met at Corsicana, June 1, 1925.

Dr. J. Bedford Shelmire of Dallas, read a paper on syphilis, which was illustrated with many appropriate lantern slides.

Dr. Homer B. Jester of Corsicana, read a paper on "Stenosis of the Pylorus," in which he stressed the thorough examination of infants who vomit after feeding. He urged that after the various medical methods of treatment had proven unsuccessful, surgical treatment should be resorted to.

Dr. W. D. Cross of Corsicana, delegate to the State Medical Association at Austin, made a report on the transactions of the House of Delegates, and showing the necessity for the continuation of the educational campaign.

Tarrant County Medical Society met June 2, at 8 p. m., with 23 members present.

Dr. Tom Bond read a paper in which he discussed "The *X*-ray in Diagnosis of Pulmonary Tuberculosis." Dr. Samuel Jagoda read a paper on "*X*-ray in the Diagnosis of Gallbladder Disease," and ex-

hibited some very interesting *x*-ray slides to illustrate his paper. Dr. X. R. Hyde discussed "*X*-ray in the Diagnosis of Peptic and Duodenal Ulcer." These papers were discussed by Drs. Smith Woodward, E. C. Schoolfield, T. C. Terrill, R. J. White, X. R. Hyde, W. R. Thompson and R. S. Mallard. Drs. Tom Bond, Samuel Jagoda and X. R. Hyde closed the discussion.

A communication was read from the North Fort Worth Undertaking Company complimenting the society on the stand taken with reference to the speeding of ambulances, and pledged their support in carrying out the wishes of the society.

The president, Dr. Clayton, announced that the program committee was considering open air meetings on the lawns of local hospitals for the next five meetings during the summer months. He also announced that the dentists had unanimously indorsed the new Medical Arts Building project at a recent meeting, and that the doctors themselves were manifesting unusual interest.

Tarrant County Medical Society held a special meeting on the lawn of the Baby Hospital, at 7 p. m., June 18, 1925. Thirty members and their families were present.

Dr. J. L. Spivey presented a case of hydrocephalus. Dr. Jack Daly read a paper on "Glandular Tuberculosis." This was discussed by Drs. John D. Covert, T. H. Thomason and J. L. Spivey.

Dr. Charles F. Clayton read a communication regarding the matter of financing the Ruth Lubin camp for the summer. The donation of $4.00 per week, per child, by members was urged.

Following the scientific program, refreshments were served on the lawn of the hospital.

Taylor County Medical Society met at Abilene, June 9, with a very good attendance.

Dr. Minton T. Ramsey of Abilene, read a paper on "Focal Infection; Its Relation to Systemic Disease," which was discussed by Drs. W. J. Mathews and M. E. Campbell.

Mr. George Bullock of Chicago, gave a motion picture demonstration of physiotherapy technique, showing, among other things, electrocoagulation of carcinoma of the bladder and of the tonsils under local anesthesia, and diathermy in various conditions such as pneumonia, neuralgia, etc.

Van Zandt County Medical Society met at Grand Saline, June 5, 1925. After a dinner at a local cafe, the society adjourned to meet in a public meeting at the Methodist Church. The purpose of the meeting was to acquaint the public with the history and purposes of scientific medicine.

Dr. V. Bascom Cozby was the first speaker. He gave a brief history of the progress of scientific medicine.

He was followed by Dr. Oscar Marchman of Dallas, who spoke concerning the great advance made in science against certain of the devastating diseases that have plagued mankind. He denounced the quack who would profit by the credulity of the layman, in no uncertain terms.

Dr. C. M. Rosser, president of the State Medical Association, made a speech on the purpose of the Medical Practice Act and the necessity for its enforcement.

Following these addresses, short talks were made by Rev. O. W. Hooper, Judge West, county attorney, Jim Shields and John Anthony.

At the close of the meeting the audience endorsed the efforts of the medical profession in preventing disease and in requesting enforcement of the Medical Practice Act.

The North Texas Medical Association met at Denton, June 16 and 17, with 102 members, 20 visitors and 32 members of the Woman's Auxiliary in attendance during the two days of the meeting. The first day's session was held in the Convention Room of the new Hotel Simpson, and the second day's scientific program was held in the Elks' Club. The following scientific program was rendered: "Cancer and its Prevention," by Dr. J. E. Gilcreest, Ennis; "Some Practical Points in Diagnosing Toxic Goitre," by Dr. E. O. Rushing, Dallas; "Acute Pancreatitis," by Dr. H. I. Stout, Sherman; "Pyelitis and its Treatment," by Dr. Howard L. Cecil, Dallas; "The Mobilization of Ankylosed Joints," by Dr. Ben L. Schoolfield, Dallas, discussed by Drs. W. B. Carrol and M. S. Seely; "Pulmonary Embolism," by Dr. C. A. Gray, Bonham, discussed by Dr. A. B. Small; Tuberculous Laryngitis," by Dr. D. V. Myers, Dallas, discussed by Drs. M. M. Morrison, R. May, Leland Ellis and M. S. Seely; "Prevention of Still Birth," by Dr. C. R. Hannah, Dallas, discussed by Drs. G. R. Brown, R. May, J. H. McLean, G. D. Lain, Leslie Moore, A. W. Acheson and W. C. Cunningham; "Induction of Labor and Operative Procedure," by Dr. W. T. Robinson, Dallas, discussed by Drs. M. E. Gilmore, C. R. Hannah and Robinson; "*X*-ray in Obstetrics," by Dr. Davis Spangler, Dallas, discussed by Drs. G. E. Henschen and Laurence; "The Use of Glucose and Insulin in the Treatment of Obstetrics and Post-Operative Acidosis," by Dr. Q. B. Lee, Wichita Falls, discussed by Drs. T. C. Terrell, J. H. McLean, M. E. Gilmore and M. S. Seely; "Treatment of Incomplete Abortion," by Dr. J. C. Erwin, McKinney, discussed by Drs. D. M. Higgins, G. D. Lain, J. H. McLean, T. W. Buford, Smith, M. M. Morrison, M. E. Gilmore and D. R. Venable; "Mortality in Obstetrics," by Dr J. W. Bourland, Dallas, discussed by Drs. J. H. McLean, D. R. Venable, D. M. Higgins, M. S. Seely, Arthur Gleckler and T. W. Buford; "Deficiency Diseases," by Dr. A. W. Acheson, Denison, discussed by Dr. T. W. Buford of Minter; "Drug and Alcohol Addiction," by Dr. Jno. S. Turner, Dallas, discussed by Drs. Enloe, Will S. Horn, R. May and M. M. Morrison; "Clinical Consideration of Edema," by Dr. C. W. Barrier, Fort Worth, discussed by Dr. George Carlisle; "Floating Kidney," by Dr. E. P. Murchison, Fort Worth, discussed by Dr. G. H. Henschen; "Important Points Frequently Overlooked in the Treatment of Cardiac Decompensation," by Dr. G. L. Carlisle, Dallas, discussed by Dr. Chas. W. Barrier; "*X*-ray in the Diagnosis of Pulmonary Tuberculosis," by Dr. Tom Bond, Fort Worth, discussed by Dr. L. W. Kuser; "The Clinical Recognition of Coronary Thrombosis," by Dr. R. B. Giles, Dallas, discussed by Dr. Will S. Horn.

At the business session following the conclusion of the scientific program, a resolution was adopted providing for only two scientific sections, namely, the Section on Medicine and Medical Specialties and the Section on Surgery and Surgical Specialties.

An elaborate banquet was served to the members and visitors in the Banquet Room of the Hotel Simpson on the evening of June 16. Dr. G. E. Henschen of Sherman, President of the Grayson County Medical Society, presided as toastmaster, and Dr. C. M. Rosser of Dallas, President of the State Medical Association, was the principal speaker.

A very enjoyable chicken dinner was served the members of the Association and visitors at the Chamber of Commerce at noon on June 17.

Members of the Woman's Auxiliary were delightfully entertained by the local Auxiliary during both days of the session. Especially enjoyable was the Tea given at the Denison Rod and Gun Club. During the Tea the visitors were entertained with a splendid musical program.

The next meeting of the Association will be held on December 8 and 9, at Fort Worth.

The Valley Medical Society met at the Travelers Hotel in Brownsville, with 50 doctors in attendance.

Dr G. R. Yantis of Brownsville, read a paper on "Diathermy."

Dr. Scott Applewhite of San Antonio, spoke on "Ocular Malaria," giving an interesting discussion of this subject, which is a comparatively new field.

Dr. Charles A. R. Campbell of San Antonio, urged the establishment of several bat roosts near Brownsville, to aid in eradication of mosquitoes.

Following the scientific program a banquet was served the society on the Roof Garden of the Travelers Hotel.

The following officers were elected for the ensuing year: Drs. B. J. D. Stevens of Weslaco, president; A. G. Padilla of Brownsville, vice-president, and J. G. Harrison of McAllen, secretary.

The next meeting of the society will be held in August, at Mercedes.

CHANGES OF ADDRESS.

Dr. M. E. Parker, from Navasota to Anderson.
Dr. H. C. Amos, from Aubrey to Denton.
Dr. J. E. Carr, from Port Arthur to Liberty.
Dr. Conrad Frey, from Somerset to Hamilton.
Dr. J. D. Cooper, from Hemphill to Blox.
Dr. J. E. Marsh, from Temple to College Station.
Dr. B. L. Lockett, from Abilene to Dallas.
Dr. G. T. L. Bryan, from Caddo to Mineral Wells.
Dr. G. Graham, from Dallas to Beaumont.
Dr. L. R. Coble, from Zephyr to Dublin.
Dr. W. D. Lightfoot, from Austin to Milwaukee, Wisconsin.
Dr. Geo. H. Candlin, from Laredo to Dolores.
Dr. C. F. Osborne, from Taylor to Baytown.
Dr. Minnie O. Parrish, from Wichita Falls to Wilkinsburg, Pennsylvania.
Dr. S. C. Richardson, from Eastland to Dallas.
Dr. Gibbs Milliken, from Galveston to Houston.
Dr. G. T. Reuss, from Cuero to Dallas.
Dr. Oscar Huff, from San Marcos to Brady.
Dr. J. O. Rogers, from Odell to Chillicothe.
Dr. G. C. Lechenger, from Galveston to Houston.
Dr. N. J. Weed, from Uvalde to Cline.
Dr. W. P. Brown, from Galveston to Fort Worth.
Dr. E. C. Price, from Dublin to Quitaque.
Dr. H. Garst, from Corpus Christi to Casper, Wyoming.

DEATHS

Dr. J. M. Hanks died at his home at Blum, Texas, May 16, 1925.

Dr. Hanks was born in Shelbyville, Shelby County, Texas, October 9, 1859. His parents dying when he was still but a boy, he had a hard struggle to obtain an education, having to work his way through school. After completing his grammar school education he became interested in medicine and began studying at night after work in the office of the local physician. He saved his money and went away to attend lectures on medicine, and finally went before the District Medical Board, comprising Hill, Bosque and Johnson Counties, from which he received his certificate January 16, 1863. He practiced medicine for a time in his home community and then attended the Louisville Medical College, from which he received his degree in medicine in 1886. In 1891 he attended the Kentucky School of Medicine. He had practiced medicine in Blum for many years and had long been a faithful and active member of the Hill County Medical Society and of the Texas State Medical Association. He was greatly beloved both as a physician and as a public-spirited citizen, always being ready to give freely of his time and money for the betterment of his community. For 37 years he had been a steward in the Methodist Church.

Dr. Hanks was married to Miss Gabrella Donaldson on April 12, 1883, and to this union were born seven children. He is survived by his widow and three of his children, Mrs. Blanche Coburn of Blum, Mrs. Ruth Freeman of Cleburne, and Mrs. Vivian Frye of McGregor, and by three grandchildren.

Dr. **Henry Ludlow Rugeley** died at his home in Bay City, Matagorda County, Texas, May 6, 1925.

Dr. Rugeley was born at Lownesboro, Alabama, January 12. 1838. He received his degree in medicine from the Jefferson Medical College in 1861, and served throughout the Civil War as a Medical Officer in the Confederate Army. He was married to Miss Elizabeth Elmore, December 14, 1865, and to this union nine children were born, three of whom survive him. Dr. Rugeley practiced medicine for over 35 years in Matagorda County, retiring from the practice of medicine before the County Medical Society was organized in his county. In his passing the community has lost one of its most honored citizens, a doctor of great ability who had endeared himself to his people by long years of self-sacrificing effort.

Dr. **Ralph C. Spence** died of chronic nephritis at Baylor Hospital at Dallas, June 9, 1925.

Dr. Spence was born at Kipling, North Carolina, July 14, 1893, and was the son of Dr. and Mrs. R. T. Spence. He graduated from the University of North Carolina in 1914, and was elected to the Phi Beta Kappa Society. He received his degree in medicine from the Harvard Medical School in 1918, and served as Medical House Officer at the Massachusetts General Hospital. He spent the next two years as House Officer and Resident Pathologist in the Baby Hospital of New York City. Coming to Dallas in

DR. RALPH C. SPENCE.

1920, he limited his practice to pediatrics. He was appointed Instructor in Pediatrics at Baylor Medical School, where his ability soon brought him into prominence, and he rapidly built up a large pediatric practice. He was greatly interested in civic affairs, taking active part in all health movements, especially those directly concerning child welfare, and he devoted a great deal of time to the children in charitable institutions. He was a member of the Dallas County Medical Society, of the Texas State Medical Association and of the Southern Medical and the American Medical Associations. He was a member of the Presbyterian Church, a Scottish Rite Mason, and a member of Trinity Valley Lodge, A. F. and A. M., and of Hella Temple Shrine. He was also a member of the Dallas Rotary Club and of the Dallas Athletic Club.

One of his professional brethren who knew him well has said of Dr. Spence: "A man of fine mind and broad and thorough training, he brought to his chosen specialty a love for children that endeared him greatly. He was always courteous in his relations with others, quiet and unassuming in manner, fair, honest and loyal. He will be sadly missed, both personally and professionally. Not only his friends and his clientele of patients have lost a valued friend and adviser, but the profession has lost one of its most promising members."

Dr. Spence is survived by his mother, Mrs. R. T. Spence, and a sister, Miss Clare Spence, both of Kipling, N. C., and three half sisters, Mrs. Alonso Parrish of Brenson, N. C., Mrs. O. T. Britt of Raleigh, N. C., and Miss Cora Spence of Kipling, N. C.

BOOK NOTES

The Personal Equation. By Louis Berman, M. D., author of "The Glands Regulating Personality." 12 mo., cloth, 304 pages, illustrated. Price $2.00 net. The Century Company, 353 Fourth Avenue, New York City.

In this work the author advances the theory that the temperament and, in fact, the very character of an individual is controlled very largely by the glands of internal secretion. He apparently does away completely with the existence of the soul of man—at least, to his own satisfaction—when he concludes, "To a modern mind—that is, to a mind acquainted with the details of real knowledge concerning the relations of the body and mind available at the beginning of the second quarter of the twentieth century, and imbued with the intellectual integrity which created that knowledge—the doctrine is exploded." We would venture to suggest, however, that the finality of this conclusion is at least subject to controversy. Wonderful as have been the facts discovered in recent years concerning the action of products elaborated by the glands of internal secretion, there are many who are conceited enough to believe that they possess "modern minds," who do not believe that all of the facts of psychology are explained by the action of internal secretions on the organism, or for that matter, that even a majority of such facts are thus explained. The pictures of several prominent public characters with their "glandular diagnoses" are more of an appeal to the popular imagination than to scientific medical reason. In his foreword, in speaking of the glands of internal secretion, the author states, "Much, a great deal, about them is unknown and remains to be discovered. Much is only suspected or guessed. Much is erroneously conceived as the truth or put forward as the truth by those insufficiently or narrowly trained in the methods of science or interested only in the commercial exploitations of their possibilities." It is difficult to understand how such positive conclusions as the author puts forth in his book can be drawn from a premise which he admits in his preface is supported by such a modicum of scientific facts. Nevertheless, the book is stimulative of thought. It is entertaining even though one may not accept the author's conclusions and, in many instances, for that matter, his premises.

From Infancy to Childhood, The Child from Two to Six Years. By Richard M. Smith, M. D., Assistant Professor of Child Hygiene, Harvard University; Associate Physician, Children's Hospital; Visiting Physician, Infant's Hospital, Boston. 12 mo., cloth, 105 pages. Price $1.25. The Atlantic Monthly Press, Boston, 1925.

This little book is written especially for the mother, to enable her to so direct her child's life during the critical first years which mean so much in its future growth and welfare. The volume is divided into nine chapters as follows: I—Doctor, Mother and Nurse; II—the Nursery; III—Physical Development; IV—Care of the Body; V—Clothes; VI—Food; VII—Daily Routine; VIII—Sickness; IX—Training and Education. All advice given is in strict accordance with sound medical practice and is written in the language that the average mother can readily understand. It should prove a very useful volume.

An Introduction to the Study of Mental Disorders. By Francis M. Barnes, Jr., M. A., M. D., Associate Professor of Nervous and Mental Diseases in the St. Louis University Medical School; Consultant Neuropsychiatrist to the U. S. Veterans' Bureau, Ninth District, St. Louis. 8vo., cloth, 295 pages. Price $3.75. C. V. Mosby Company, St. Louis.

In this second edition of Dr. Barnes' valuable work on mental disorders he has combined into a single volume his "Introduction to the Study of Mental Disorders," and "Notes on Mental Diseases." A number of new chapters have been added to the book, and several chapters have been considerably revised and amplified. This book was an outgrowth of notes prepared by Dr. Barnes for third year medical students in the St. Louis University Medical School. The book is not intended as an exhaustive work on neuropsychiatry, but is especially written as a foundation upon which the third year medical student may build when he begins a more detailed study of nervous and mental disorders in his senior year. The volume will be found very interesting to the general practitioner who desires a general idea of the modern conception of nervous and mental diseases. Especially interesting are those portions of the book in which the author deals with the subject of vocational rehabiliation of our soldiers of the World War who received mental wounds. The author's large experience as consultant neuropsychiatrist of the U. S. Veterans' Bureau has enabled him to form valuable opinions concerning this important work.

Modern Surgery, General and Operative. By J. Chalmers Da Costa, M. D., LL. D., F. A. C. S., Samuel D. Gross Professor of Surgery, Jefferson Medical College, Philadelphia. Ninth Edition, Revised and Reset. 8 vo., cloth; 1,527 pages; 1,200 illustrations, some colored. Price $10.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

This authoritative work on general surgery is so well known that a review in these columns seems almost superfluous. In this present edition a thor-

ough revision has been made and much that was formerly included has been omitted for more elementary books on surgery and minor surgery. Many of the newer operative procedures will be found in the present edition, as well as those which have stood the test of time. The profound effect that the experiences of the World War had upon surgery can be readily appreciated in the present volume, especially in those chapters dealing with the treatment of wounds and those chapters on fractures and amputations. It would be difficult to find a single volume on surgery that is more comprehensive and more "modern" than "Modern Surgery."

A Text-Book of Pathology (Third Edition.) By William G. MacCallum, M. D., Professor of Pathology and Bacteriology, Johns Hopkins University, Baltimore. Third edition, thoroughly revised. 8vo., cloth; 1,162 pages; 575 original illustrations. Price $10.00 net. W. B. Saunders Company, Philadelphia and London, 1924.

The present edition of this well known text-book of pathology remains very much the same as its predecessor. Such subjects as anatomy and pathology must necessarily change very slowly, being as they are fundamental branches of medical science, the facts of which rest upon as secure a basis as those of chemistry and physics. The illustrations are fine examples of the engraver's art, and give a vivid and correct idea of the tissues and structures they are intended to illustrate. The volume closes with a general discussion of the subject of tumors and new growths, which is of special interest. The author well says concerning this difficult subject, "Some of these theories put forward by men who had worked very intimately with tumors, have survived to this day, but it is rather discouraging to find that most of the modern theories are merely fantastic inventions of a philosophic character proposed by men who do not seem to have lived with tumors, nor even to have been particularly familiar with them. They always introduce many new terms and a new classification of tumors, with specially constructed Greek names, and the whole merely adds to the confusion and reminds one of the writings of the scholastics of the middle ages."

Medical Education, a Comparative Study. By Abraham Flexner, of the Carnegie Foundation for the Advancement of Teaching. 8vo., cloth, 334 pages. Price, $2.50. The Macmillan Company, New York, 1925.

Those who have read the previous reports by Mr. Flexner on "Medical Education in the United States and Canada," and "Medical Education in Europe," know how thorough an investigation of this subject Mr. Flexner has made and how sincere and frank he is in the expression of his views. At that time Mr. Flexner was severely excoriated, especially by those sub-standard schools, which while realizing that "an unpleasant truth is better than a pleasant falsehood," did not like to be invited to come up to standard or close their doors. Dr. Henry S. Pritchett, President of the Carnegie Foundation for the Advancement of Teaching, says of this book: "Mr. Flexner's survey of medical education at this time and his review of the progress during the last fifteen years is a most valuable contribution to the literature of the whole subject. It sets forth with great clearness the forces which have operated to bring about improvements, calls attention to certain weaknesses in the present methods of teaching, and, what is most important, makes clear the dependence of medical teaching upon a sound and thorough preparation of the medical student in the elementary and secondary school. Medical education is, after all, not medicine but education, and Mr. Flexner's analysis of the conditions which affect medical education has great significance with respect to all professional education."

Anesthesia for Nurses. By Colonel William Webster, D. S. O., M. D., C. M., Professor of Anesthesiology, University of Manitoba Medical School; Chief Anesthetist, Winnipeg General Hospital. 12mo., cloth, 153 pages, 41 illustrations. Price, $2.00. C. V. Mosby Company, St. Louis, 1924.

The author states in his preface that this little book on anesthesia is written for the nurse who is called upon to give anesthetics due to the exigencies of medical practice and in sparsely settled communities, and also to familiarize the nurse with the general subject of anesthesia that she may be more useful in the operating ampitheatre. The advice to nurses who wish to take up anesthetics as a profession, to first study medicine, is particularly sound. There are too many half-trained, non-medical anesthetists as it is! After a brief historical chapter on anesthesia, the physiology of anesthesia is discussed and then the principal anesthetics are taken up and their method of administration carefully described. Following the chapter on general anesthesia is a brief chapter on local anesthesia and spinal analgesia. The remaining half of the book is devoted to chapters on Preoperative and Postoperative care of the Patient, Positions Assumed and Special Preparation for Various Operations, The Difficulties and Complications of Anesthesia, Medication, Surgical Shock—Its Cause, Symptoms and Treatment, Consideration of the Patient's Viewpoint, and on Apparatus Used in Anesthesia and Its Care. The nurse will find this book very profitable reading.

The Diagnosis of Children's Diseases, with Special Attention to the Diseases of Infancy. By Professor Dr. E. Feer, Director of the University Children's Clinic, Zurich, Switzerland. Translated by Carl Ahrendt Scherer, M. D., F. A. C. P. 8vo., cloth, 551 pages, 267 illustrations. Price, $7.00. J. B. Lippincott Company, Philadelphia, 1925.

Dr. Feer occupies an enviable reputation in his chosen field of pediatrics. His work has gone through a third edition and has been translated into French, Spanish and Italian, which fact, the translator informs us, influenced him in attempting an English translation in order that the English speaking profession might have the benefit of Dr. Feer's wide clinical and teaching experience both in Heidleburg and Zurich. The method of handling the subject is quite different from that adopted in practically all American text-books in pediatrics. The author states in his introduction that the book is intended to supplement rather than take the place of the systematic text on diseases of children. Instead of beginning as do most works on pediatrics with infant feeding and then taking up the various diseases of childhood systematically, the author approaches the subject from the standpoint of the diagnostician, giving the symptoms found and then enumerating the diseases with which these symptoms may be associated. Then the various regions of the body are taken up and the method of examination of each with the most common pathological findings which are to be looked for. The many illustrations which accompany the text are for the most part reproductions of actual photographs, and the author is certainly due the publisher the thanks which he expresses in his introduction. The book is stimulating, instructive and entertaining, and we recommend it most heartily to our readers.

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Scientific Section and Committee Appointments.—We are authorized by President Dr. Rosser to publish the official family for the current year, as follows:

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Dr. W. A. King* (four years), San Antonio.
Dr. A. P. Howard (three years), Houston.
Dr. F. P. Miller (one year), El Paso.

*The minutes of the House of Delegates, as published in the June, 1925, number of the Journal, shows Dr. F. P. Miller elected to succeed himself, upon the nomination of President Dr. Bledsoe. Doctor Miller's term had not expired, and the President nominated Dr. King to succeed himself, and he was elected. He had been serving unofficially, as an additional member of the Council, without term of office. He assumes the four-year term, as provided in the newly adopted Constitution and By-Laws.

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Texas Representative National Council on Medical Education.

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Dr. Wm. Keiller, Galveston, Alternate.

Texas Delegate to the Association of American Medical Colleges.

Dr. W. H. Moursund, Dallas.
Dr. E. H. Cary, Dallas, Alternate.

To the Texas Dental Society.

Dr. I. L. McGlasson, San Antonio.

To the Texas Pharmaceutical Association.

Dr. Clay Johnson, Fort Worth.

To the Arkansas Medical Society.

Dr. Nettie Klein, Texarkana.

To the Colorado State Medical Society.

Dr. S. P. Vineyard, Amarillo.

To the Louisiana State Medical Society.

Dr. Richard E. Barr, Orange.
Dr. W. P. Coyle, Orange, Alternate.

To the New Mexico State Medical Association.

Dr. A. J. Caldwell, Amarillo.

To the Oklahoma State Medical Association.

Dr. E. Goolsby, Paris.

To the Texas Association of Sanitarians.

Dr. M. P. McElhannon, Belton.

The Management of Our Scientific Work will hereafter rest with the newly created "Council on Scientific Work." It will be noted that this Council consists of the President and Secretary of the Association and the officers of scientific sections, ex-officio, in addition to the five committeemen named by the President. This Council has the duties of the former Committee on Scientific Work, in addition to which it will through conferences endeavor to coördinate the scientific work of the Association, including the work of scientific sections and of the several standing and

special committees on scientific subjects. This Council has the authority to coöperate with outside organizations in accomplishing its purposes, and will have considerable to do with the arrangement of the scientific program for the annual session. This is an important group, on a par with the other councils. The members proper of the Council will be able to formulate a continuing policy and carry on without interruption, the ex-officio members coming in new each year serving to keep the committee out of the traditional rut. The idea involved is comparable to that responsible for the "Executive Council," the one having to do with the scientific affairs of the Association and the other with the balance of its purposes. A conference of the Council on Scientific Work may at once settle many important matters pertaining to the work of scientific sections, and calling into consultation the committees having to do with scientific subjects, such as the Committee on Scientific Exhibits and the Committees on Medical Education, Cancer, and even Hospital Standardization, much may be accomplished for a certainty that has heretofore been accomplished uncertainly. In other words, there may be coördination here as in the case of the scientific sections. We may look with confidence to the development of the scientific phase of our endeavors.

The new by-laws have definitely taken in hand several matters pertaining to the work of the scientific sections, which has heretofore been more or less subject to speculation. The number of papers allowed each section (Section 3, Chapter X), is given as follows: Section on Medicine and Diseases of Children, 25; Section on Surgery, 25; Section on Gynecology and Obstetrics, 18; Section on Eye, Ear, Nose and Throat, 20; Section on Radiology and Physiotherapy, 18; Section on Public Health, 20.

The exact procedure in the selection of papers for the scientific programs is set out in Section 4, Chapter X, of the By-Laws, and Sections 5 and 6 of the same chapter explicitly cover the presentation of papers and conduct of meetings of the sections. There can be no doubt in the future concerning these matters. Perhaps it would be well to again go over some of these matters. Papers will hereafter, as recently, be selected from among the papers offered, by section chairman, presumably in accordance with the views of the Council on Scientific Work. Members will be expected to offer such contributions without solicitation. Selection must be deferred until approximately sixty days before the date of the annual session. Not more than one paper may be presented through the scientific sections by an one person, and no paper that has been published is eligible to appear on the scientific program. All papers presented must have been read in full before a component county society or, in the instance such opportunity is denied the author by force of circumstances, before a district society of which the author is a member. It is required that the secretary of such society notify the section secretary that the paper concerned has in fact been read in full before his society. Notwithstanding this requirement, the officers of sections are required to ascertain whether this requirement has been met.

Papers on the scientific program are considered the pledged property of the Association and become the property in fact of the Association immediately that they are presented. Papers thus pledged must be delivered to the secretary, whether or not the author is present. Whether the paper be read will depend upon the will of the section at the time. It is required that papers be typed originals, written on one side of the paper only, with double space and ample margins, and not bound. It is required that scientific sections so conduct their meetings as to complete their programs within the time specified. They are not permitted to extend the time of their meetings, so as to interfere with a general meeting. An essayist is allowed twenty minutes in which to present his paper. This time may be extended, in advance, by the Council on Scientific Work, and the amount of time must be noted on the program. The time of an author may be extended after the section has adjourned, provided that this privilege does not carry the section into the time set aside for a general meeting. The usual five minutes is allowed

for discussions, and the section is not permitted to extend the time of the speaker.

It is our impression that the limitation set upon the number of papers on the scientific program, which has been in effect now for two or three years, has worked to the advantage of all concerned. The sections by attending strictly to their work and applying the rule, are able to conclude their labors within the time allowed, and when the programs are full there is no time wasted. We are not certain that the method of selecting papers has worked so well. As we anticipated in the beginning, experienced authors have felt that their services should be solicited and the novice has hesitated to push himself to the front. The great group in between has simply been negligent about the matter. We are not perhaps informed, but we have an idea that section officers have been compelled to solicit quite a few papers in order to insure that their programs be full, and in some instances we know it to be a fact that section officers have, following solicitation, been overrun with offers. There has been some embarrassment as a result. The truth is, those who have anything new or startling to offer are few and far between. They probably come forward at once, but there are many vacant places to be filled, in addition. Quite probably, section officers will find it necessary to continue to look around for worth-while papers for their respective programs. At the same time, we would advise those who expect to contribute to the next program to get their offers in early, with full and free preliminary synopses, or abstracts, of their prospective papers.

It will be noted that the designation of two of these sections has been changed. The Section on Ophthalmology, Otology, Rhinology and Laryngology has become the Section on Eye, Ear, Nose and Throat, and the Section on State Medicine and Public Hygiene has become the Section on Public Health. This change is distinctly in the interest of simplicity and to be appreciated. There were recommendations to eliminate the "Diseases of Children" part of the section on Medicine and to abolish the Section on Gynecology and Obstetrics, but the House of Delegates was disinclined to take such radical steps without more extensive hearings than were possible at the time.

There are several special committees having to do with scientific subjects, and of particular importance among these is the Committee on Scientific Exhibits. We have not heretofore had a great deal of success in assembling scientific exhibits during our annual session. There are several reasons for this failure, all good. However, it remains true that interesting and instructive scientific exhibits are most desirable, indeed. Perhaps the Council on Scientific Work will be able to devise a plan whereby this committee may this year succeed in its endeavors. The Board of Trustees will make appropriations necessary to insure the success of such exhibits if a workable, promising plan of operation is devised. Certainly, the work of the scientific sections should be supplemented nicely by scientific exhibits.

The Committees on Medical Education and Hospital Standardization might well pool their interests, and perhaps they will do so under the guidance of the Council on Scientific Work. There are two first-class medical colleges in the State at this time, and they need no supervision or counsel from us. There is not likely to be any other teaching institution of this sort in the near future. One of the problems of medical education is securing suitable internships for graduates in medicine. Hospitals of the State must be made available for this purpose. The connection between the two committees is clear. In addition to this consideration, there are two great National organizations, perhaps three, that are giving serious thought to the standardization of hospitals. These are, the American Medical Association, the American College of Surgeons and two or three hospital associations. We have invited these organizations to utilize our Committee on Hospital Standardization in investigating our Texas hospitals, both in order that we may be allowed to function in accordance with our ambition and that our hospitals may not be continually harassed by inspections. Our plans in this regard have not met with flattering success. We have been asked for information but there have been no funds available, and the authority for the inspection requested has not seemed to be sufficient to get results and protect inspectors from criticism.

The Committee on Cancer, in so far as cancer is a subject of scientific interest, will work with the Council on Scientific Work. In the matter of its publicity and educational endeavors, it will doubtless work to best advantage with the Executive Council, and in connection with the Publicity and Educational Campaign of the Association, at present being conducted in connection with the campaign in the interest of the enforcement of the Medical Practice Act.

The Committee on Health Problems in Education is somewhat in the attitude of the Committee on Cancer; its interests are divided in a similar manner. This committee, however, is more a committee of the American Medical Association than it is of the State

Medical Association, because of the coöperation of our National Association with the National Teachers' Association, in working out the health problems of our educational system. Our State committee is making extensive plans for carrying out the desires of the National organizations, and for coöperation with other welfare organizations on a basis very much broader and doubtless more effective, than has been contemplated.

The Committee on Care and Treatment of the Insane did not quite finish its work last year. More was accomplished than had been hoped for and a dintinct step in the desired direction taken. The new law, which this committee helped to secure, corrects many evils and makes preliminary provisions for the correction of others. The law could be amended to advantage in several particulars, and most certainly adequate appropriations would help. Indeed, the big advantage of the new law will not be gained until the psycopathic hospitals provided for have been erected and placed in operation.

The Management of Our Association in General is in the hands of executive officers, councils and committees. The trouble with organizations of the character of ours is that there are so many and such rapid changes of administration that a continuing policy in the matter of control can hardly be devised and carried out. That is one of the principal faults in a democracy. Theoretically, it is a splendid thing to have new blood, new ideas and new thought coming in from the great group of the governed each year, and practically it would be so if we could grant that the incoming officials would be experienced and able to take hold at once and go ahead with whatever is in hand. In the nature of things they cannot be, of course. So it is up to us to strike the golden mean, as between chronic office holders and raw recruits in office. It seems to us that we have come as near doing that as it is humanly possible to come, and while there will doubtless be helpful revisions of our system of control, we feel sure that, in the main, our affairs will be conducted along the present lines for some years to come.

Under our State charter, the Board of Trustees has control of our funds, and, in fact, of our Association ultimately. We cannot change that fact if we want to, except by forfeiting our State charter. We can hardly afford to forfeit our State charter because of the possibility of libel and damage suits. The new Constitution and By-Laws in their practical application perpetuates the control of the Trustees but provides a workable means of participation by the House of Delegates, which is and must always be our legislative body. In view of the comparatively large sums of money handled by the Association each year, our management must be fairly comparable to that of strictly business corporations throughout the country (and it is to cover these that our corporation laws under which we are chartered were devised), and yet our purpose is not to conduct a business as such. We are a scientific, fraternal and welfare organization, our business enterprises being collateral but none the less necessary. It is easy to conceive of situations wherein one group desiring to push our welfare work would clash with another group desiring to accentuate the business side of our endeavors. In between is where we should move, of course, and that is what our present system of control provides for. It is largely a matter of readjusting ourselves. On the one hand, we must be protected against patriotic and enthusiastic wastefulness, and on the other hand, we must be protected against hurtful inhibition.

From a practical standpoint, the only difference in our financial control under the new Constitution and By-Laws, is that the heads of the various enterprises of the Association are required to submit to the Trustees a tentative budget for the forthcoming fiscal year, and the Trustees in turn are required to submit a tentative budget embracing these several budgets or modifications thereof, in their annual report to the House of Delegates. Thus the House of Delegates has an opportunity through its Reference Committee and on the floor of the House, to debate the plans of the Trustees as they relate to expenditures, and to definitely state its will in the premises. The Trustees then make appropriations or whatever modifications of the tentative budget it sees fit to make, following the aforesaid debate. It cannot, and really should not, be otherwise.

The most notable change in our control lies in the new "Executive Council," which is strictly an ex-officio group. It consists of the President, President-Elect, State Secretary, three Vice-Presidents, Board of Trustees, Board of Councilors and Legislative Committee. It is the duty of this Council to advise and counsel with the President in the management and coördination of the several activities of the Association. The Council may be assembled by the President at his option, or upon the request of the chairman of the Board of Trustees, the chairman of the Board of Councilors or the chairman of the Legislative Committee. It is the special duty of this Council to represent the Association in its relation to the public, but it must do this through the estab-

lished agencies of the Association or agencies created for the purpose, either by the Council or the House of Delegates. It will thus direct our educational and law enforcement campaigns, and carry on in general as directed by the House of Delegates. In other words, we have here a minature House of Delegates made up of individuals elected by the House of Delegates to carry on the work of the Association. This Council has no legislative function, and the whole idea is to coördinate the work and inspire and encourage the workers. It is not a new scheme. We have, in fact, from time to time assembled such a council, most notably in the administration of President Dr. Bledsoe. Indeed, the Council has been assembled once during the present administration. The President desired approval of certain plans for his administration. These were presented in concise, explicit form, and each item was debated at length. The conclusion of the Council was in every way satisfactory. The President plans another meeting of the Executive Council in the near future, with the Council on Scientific Work and all committees in attendance. It is thought that by following a carefully prepared program the work of the year may be laid before the Council in its essential points, and each group organized for its part in the general endeavor.

Our Committee on Legislation is an important factor, as it has always been, but its opportunity for service is enhanced under the new order of things. Formerly, this committee had to hustle for itself. Now it has the Executive Council to help it plan and to help execute the plans adopted, and the committee is itself an integral part of the Executive Council.

The Committee on Collection and Preservation of Records, in the light of the long anticipated medical history of Texas, assumes more and more importance as the time approaches for the beginning of this work. It may be of interest to our readers to know that the collection of data for the history is progressing nicely. The Trustees have employed a whole-time research worker, who has been for several months searching the State and University libraries at Austin, and will soon begin to make trips over the State in search of data of which we have some trace. In this connection, if any member of the Association knows of any facts bearing upon the medical affairs of this State in the years gone by, whether or not they are deemed of importance, they will confer a favor by notifying the State Secretary, who will see that proper investigations are made without delay. The old-timers are rapidly passing away, to our sorrow and, in many cases, to our serious loss from an historical standpoint.

The Committee on Revision of Constitution and By-Laws has been continued by the President, with a restricted and revised personnel. It is intended that this committee shall study the workings of our new By-Laws, and the suggestions made by our members for changes, and advise the House of Delegates at Houston next year what to do about it. Quite a few controversial matters were allowed to go by at Austin this year because of the earnest desire of the preceding Committee on Constitution and By-Laws, which had been studying the matter for two years, and because there was not time for debate to conclusion. It was felt that with a short debate the conclusions reached would probably be no better than the conclusions already reached by the committee, in the main, and that a much better idea of the practical working of the new scheme of management would be had a year hence. Therefore, this committee assumes a most important role, indeed, and is entitled to the advice and assistance of all who have the interest of the Association at heart. We may differ with each other and with the several members of the committee on numerous points, but it is by comparing our differences and adjusting them that we get ahead. We recall distinctly that the last committee came to the parting of the ways on an important point and decided on a compromise, which it was understood would not be allowed to stand forever and aye. At a subsequent meeting the committee resumed the argument and, much to the astonishment of each member thereof, came to a perfectly agreeable solution of the whole problem. Indeed, it was discovered that the contending groups on the committee were striving for the same end but had adopted divergent routes in their journeys thereto. So, whatever our differences, this committee is entitled to our views.

No matter how beautiful our plan may be, it will fail to accomplish its objective if each group does not comprehend and conscientiously carry out its part. We will succeed exactly to the extent that that is done. Not paying salaries to many of our servants, we are not in a position to discharge very many of them. Really, there is more obligation on the part of the unpaid servant than on that of the paid employee.

Loyalty That Counts.—When a people decide that they must go to war with another people, absolute loyalty of their own is demanded on a life and death basis. That is very good so far as it goes, and is right, but

that is not all that is necessary. There must be loyalty of another sort, the kind that helps to win. There must be patriotic expressions of every sort, and demonstrations of fealty; there must be sacrifices of time and money, and the willing risk of life on the battlefield. Time was when wars could be waged on a mercenary basis, only the governing classes and the professional soldier being involved, but conditions have changed in modern times, and no longer will wars be fought by soldiers alone, but by the entire populations of the countries involved. Those who will not fight, and who will not do what is required of them, will be segregated and treated as alien enemies. We have had recent experience of something of this sort, but in its rudimentary form. It does not require a great stretch of the imagination to see its extension to all inhabitants who will not help.

We do not mean to make the application direct, hard and fast, to our present circumstances, but the endeavors of the medical profession, as represented by the State Medical Association of Texas, to bring about the proper relationship of scientific medicine to the suffering and much abused public, and stop at least the open and shameless abuse of people who have offended only by their trustful ignorance, should receive the loyal support of our entire membership, and more; it should receive their active and continuous assistance, even to the point of sacrifice of both time and money. We are engaged in a warfare with adversaries who have all to gain and nothing to lose, and who may be expected to fight ruthlessly, neither asking nor giving quarter. Ignorance, superstition and quackery must not practice medicine. How best to carry on is, indeed, a proposition. We have selected leaders and furnished them with counsel. They are asking our advice and support. We can do no less than give both. Our leaders will accept criticism in the same kindly spirit that it is offered. If we fail to give it, we cannot fully justify unkind criticism later on.

There are many ways to help, so many ways that we will not attempt to consider them in detail. The following resolution adopted some time ago by the Dallas County Medical Society, is one way:

"Resolved: First, that the Dallas County Medical Society is in absolute and hearty accord with the Texas State Medical Association in its efforts to educate the public upon matters pertaining to the public health and in the program of standardizing the practice of medicine in this state, and

"Second, we approve the law known as the Medical Practice Act and the steps by which it was secured. We approve the recent campaign which had for its object a better knowledge of the public concerning the law and the benefits which the public will derive from it when it is properly enforced, and we, in advance, endorse such definite plans as the State Association may determine at its next meeting, having in mind the fact that ignorance in the practice of medicine is extremely dangerous to human life and that the medical profession, as the acknowledged guardian of the health of the people, should aid in all suitable ways such efforts as should be made to preserve health and prevent avoidable death."

County societies throughout the State might adopt resolutions of some sort pledging support to this and other movements, and secure their publication in the daily press.

In a letter to the Alumni of the University of Tennessee, Dr. Ben L. Schoolfield of Dallas, secretary of their association in Texas, included the following paragraph: "A good many of our members are not affiliated with their county societies. Allow me to insist that these should get in line with organized medicine by joining their respective county societies at once. One cannot keep pace with the progress of medicine and lead an isolated, clandestine professional life." Many organizations dealing with doctors might help in this manner.

A member who recently had a great many bitter things to say about our publicity campaign, and who had allowed his membership to lapse, recently informed us that while he had not in the least changed his mind in regard to the value of the campaign as a whole, and the methods used, he was going to pay his dues and seek out those whom he had influenced to do as he had done, and endeavor to induce them to return to the fold. He said that he now realized that he could accomplish more inside the organization than he could outside, and that after all democracy must suffer its handicaps agreeably or abdicate in favor of autocracy. That is the right spirit, and if this member is right he will get results; if he is not, he will doubtless be convinced. In any instance, he will help to present a solid, unbroken front to the enemies of scientific and ethical medicine and all that it stands for. We are, for the most part, entirely too ready to give up. We are too tired to fight. We are afraid we will not win; and, after all, our principal purpose is to pay our debts and leave enough to give us decent interment when we die, and perhaps feed the widow and children until they can make other arrangements. This life is still a sporting proposition. The world loves a fighter, even though he sometimes fights in a bad cause. The determination to win is sometimes about all the victor has had to count on. We are in the right, and while right may sometimes be inexpedient, it can never be wrong. When the public sees that we mean business, the public will pay attention to us. Until such a time we will be

brushed out of the way and the procession will pass on. Our leaders are asking for the whole support of our whole membership in our endeavor to popularize and enforce the Medical Practice Act that our people may have some measure of protection from the quack. Do they get it?

The Law Enforcement Campaign, anticipated editorially in our last issue, appears to be in progress—indeed, is in progress. It will be recalled that the State Board of Medical Examiners recently appealed to the State Medical Association for assistance in enforcing the Medical Practice Act, and that the State Medical Association agreed to see what it could properly do in that direction. What the method of procedure would be was not stated. The State Medical Association had long since announced itself as insistent upon the enforcement of the Medical Practice Act, in the securing of which law it had played such a prominent part, and had pledged the reputable medical profession of Texas to assist the courts and enforcement officials in every way possible. It was not a far cry from this position to active participation in prosecution. Indeed, the present administration has for one of its principal endeavors "Active support to the law enforcement officers and the courts, in the detection and prosecution of physicians guilty of immoral or criminal practices of any character," and to "Coöperate with the State Board of Medical Examiners and the law enforcement officers of the State, in prosecuting alleged violators of the Medical Practice Act." A representative of the State Board of Medical Examiners has been very active in promoting prosecutions, and county societies and the State Medical Association have coöperated in every possible way.

There have been several prosecutions with varying success. In the course of these prosecutions, with which we have kept informed in detail, several surprising and interesting situations have arisen, from which we have drawn conclusions that will be useful in the future. Our readers will not be interested in a detailed description of any trial or group of trials, but perhaps it will be worth while to refer briefly to some of the more interesting developments.

The most effective defense that the accused in these cases is able to make is outside of the law. If he is wise he fills the newspapers with specious arguments, misinformation and false accusations against the medical profession just preceding the trial, which inevitably comes to the attention of the jurors in advance of their selection as such. He crowds the court room with his misguided followers and, generally, in spite of the court, the audience applauds and in every way lends the impression that the whole community is behind the defendant and that the defendant is being *persecuted* by the medical profession because he is interfering with the business of the doctor. The impression thus lent, coupled with the allegation that the defendant merely "adjusts" the spine and does not "treat" disease, has its effect on the jury, which is generally composed either of prejudiced friends of the accused or persons ignorant of the Medical Practice Act and its purposes.

In the course of such a trial the defense attorneys are frequently able to bring to the attention of the jury, in spite of objections and the rulings of the court, that chiropractic is totally different from the science of medicine; that the chiropractor is barred by law from getting a license under the law; that the Medical Practice Act was executed to regulate physicians and surgeons and not practitioners such as chiropractors; that the chiropractors do not profess or claim to be physicians or surgeons, or to practice either medicine or surgery; that, law or no law, the people have a right to patronize whom they please in the effort to get well or keep well; and that the Medical Practice Act is a rotten law, enacted at the instance of the medical profession, and forced upon the people against their wills. Obviously, none of these allegations are true.

While chiropractic is a different method of practice, the courts have ruled time and again that its practice constitutes the practice of medicine, in the light of the definition included in the Medical Practice Act. A chiropractor is distinctly not barred by law from getting a license, as we well know. There are a dozen or more chiropractors in Texas who are legalized to practice medicine, and hence can practice this or any other art. The law has no concern with method of practice, contenting itself with the effort to determine whether the applicant for license to practice medicine is informed on the fundamentals and necessary branches thereof. The law, of course, does not apply to physicians and surgeons as such; it applies to all who undertake to practice medicine in accordance with the definition contained in the law. It makes no difference whether a practitioner claims to be one thing or another, a chiropractor or a physician, it is what he does or attempts to do that the law is interested in. If the chiropractor does not treat disease, then he is a fraud to begin with. It is beside the point to say that he removes the cause of the disease and permits nature to do the

curing. That is somewhat like the illicit distiller who claimed he did not make the alcohol; he merely made the ingredients and nature did the work. In a democracy, we may urge, of course, that the rights of the individual shall not be unduly interfered with by process of law, and it is generally conceded that a harmful law had better not be enforced, but it would be hard to say just where the line should be drawn.

We do not hear such arguments as that presented in court when a bootlegger is being tried for violating the liquor laws of either the State or the Nation, and if any sort of legislation could be construed as interfering with the rights of the individual, certainly the Volstead Act and the State laws of that character could be. The truth of the situation is, there is too much of this sort of legislation, including the Medical Practice Act in some of its phases, but our state of ethics and our carelessness about such matters, makes it necessary that such laws be enacted. If we all knew enough to protect ourselves, and were in a position to do so, we would need very few laws of any sort. The difference between the Medical Practice Act and the liquor laws is important in at least one particular. If the liquor laws are violated, the chances are that no harm has been done beyond the fact of violation; but if the Medical Practice Act is violated, the chances are that irremediable damage has been done, whether or not intentional.

Most of the chropractors who are prosecuted for violating the Medical Practice Act are defended not only by local counsel, but by attorneys of one of their national organizations. These attorneys usually do not have a license to practice law in Texas. In one case the leading counsel for the defense demanded to know who the representative of the State Board of Medical Examiners was and why he was sitting in the case, evidently to prejudice the jury by the statement that the representative of the "Medical Trust" was engaged in prosecuting the defendants.

The reply was promptly made, that the individual referred to was the appointed representative of the State Board of Medical Examiners, and that if the issue was to be raised, the prosecution would desire to know who the gentleman was who came all the way from Wisconsin to Texas to interfere with the enforcement of a Texas law, and without a license to practice law in a Texas court. Nothing more was said about the matter.

In one case the attempt was made to prove that a chiropractor and a masseur are one and the same, and the two arts the same, reference being made to the etiology of the two words. It was hoped to claim for the chiropractor the exemption provided in the Medical Practice Act for the masseur. Of course, the claim was not allowed by the court, but the jury got the idea just the same. We have yet to find a chiropractor who will agree that he practices massage; indeed, they usually protest vigorously when so accused. Should the two be proven to be the same, the claim would avail nothing, because even the masseur is not allowed to practice medicine any more than the druggist would be.

Occasionally, a renegade doctor comes to the aid of the chiropractor who is accused of practicing medicine without a license, with the claim that the manipulations are of distinct advantage in the cure of numerous diseases, while he pretends to decry the division of the practice of medicine into so-called schools or cults. Of course, physicians of this class are not members of medical societies.

In some instances, the prosecuting attorneys and even the court, patronize unlicensed practitioners, which makes a bad start, and in other instances, the individuals being prosecuted are friends, classmates or kinsmen of enforcement officers, which is worse. Prosecution, if entered into at all, is perfunctory. The only way to overcome such a situation is politically.

A subterfuge resorted to in the violation of the Medical Practice Act, is to accept contributions instead of making charges. The courts have ruled on that point, time and again, in other fields, but not in the matter of the Medical Practice Act. In two cases reported, theaters sought to operate on Sunday, permitting patrons to drop sums of money in a contribution box at the entrance. The courts held that this act constituted a charge. It is the opinion of well informed lawyers that the same rule would apply in the construction of the Medical Practice Act. As a matter of fact, the construction would necessarily be on what the word "insure" means in the definition of the practice of medicine as recorded in the Medical Practice Act. The real truth of the transaction would constitute the rule in a case of this sort.

The complaint made against alleged violators of the Medical Practice Act is often too general and seldom sufficiently specific. The usual forms do not apply very well to such cases. Frequently the charge is that the individual has practiced medicine without having a license *and* a certificate, rather than a license *or* a certificate, which makes quite a difference. The State Board of Medical Examiners stands ready to advise any who

may desire it, as to the most effective charge to be made in such cases.

The defense usually lays great stress on the fact that no drugs have been given, no prescriptions written, particularly liquor prescriptions (which is a wicked trick), no temperature taken, no blood tests made, and, in fact, nothing done that the physician or surgeon usually does. Of course, none of these practices are involved. The effort is usually made, also, to show that certain individuals were cured by the manipulation. That, too, is of no consequence. The charge is that the accused has been practicing medicine without a license, not that he has been practicing a system which will or will not cure. In one case, the accused, a chiropractor, was asked on the stand by the prosecution what he would do for a patient suffering with typhoid fever, diphtheria, appendicitis, cancer, or stone in the kidney. The answer was that he would do nothing in such cases. He was then asked what he would do for rheumatism. He stated that he would adjust the backbone. His claim that he did not treat disease, of course, fell to the ground with this admission. It would be possible by this line of questioning to make the accused admit that there are very few cases in which his system of practice is applicable; either that, or make him admit that he treats diseases that he should not treat and claims not to treat.

The defense always endeavors to prove by character witnesses that the accused is a "law-abiding citizen." This endeavor has been offset in some cases by the prosecution making the same witnesses admit that any individual who persistently violates the Medical Practice Act cannot be said to be a law-abiding citizen. The jury and the audience know, usually, that the accused in such cases is a chronic violator of this law.

It is sometimes a mistake to insist that the accused be convicted merely because he has violated the law. Many jurors care little or nothing about the law *per se*, particularly when so much reproach is being brought upon the law as generally is the case in trials of this sort. It is better to cast the plea on the grounds that the public is not informed and that ignorant practitioners frequently do irreparable damage. The public has no way to determine who is informed except upon the authority of the State, and the State can only determine whether an applicant for license to practice medicine is informed as to the fundamentals of medicine. Unless a practitioner is informed on these branches of medicine he is a danger to the community. It is easy to show that the accused in such a case is ignorant, and in the argument the application can be made.

The contention that a practitioner of one of the cults, chiropractic, for instance, would fare badly in applying to the State Board of Medical Examiners for license, because of the five regular doctors on the Board, may be offset by calling attention to the fact that there are seven members of the so-called minor schools on the Board. Of this number, all might be, if the Governor so chooses, chiropractors. As a matter of fact, there are two osteopaths on the present Board, and there have been as many as three. While the osteopaths are entitled to be called Doctor, and are not limited in their sphere of activity, they do not carry the title M. D., and do not profess to give medicines. While the osteopaths are generally sticklers for high standards, according to the argument in some of the prosecutions they would not be expected to be so.

In one case, the argument of the defense was that the nerves of the body were like the gas line in an automobile. When the line gets plugged up and the gas won't flow, the car won't run. The argument was answered by directing attention to the fact that if there is a knock in the car, or a bearing is burned out, or a gear-tooth broken, it is not sufficient for the mechanic to say that everything will be all right when the gas line is unstopped, and no man would take his automobile to a mechanic who would say that any one cause can account for all the troubles that automobiles are heir to.

In short, there is no contention made in the defense of these cases, as a rule, that may not be easily met, and to the satisfaction of the average citizen who is reasonably well informed. The task is, after all, to see that the public, from which juries are drawn and enforcement officials elected, understand the situation.

THE PRESIDENT CALLS.

To the Official Family,
State Medical Association of Texas.

I take this method of giving preliminary notice that a conference of the officers, councils, committees and section officers of the State Medical Association will be held in the Long Horn Room, Texas Hotel, Fort Worth, September 1, 10:00 a. m. There are numerous important problems to be considered, and it is the purpose of the present administration to secure the maximum of coöperation throughout. It has been necessary to assign certain work to certain groups, but it is realized that adaptability cannot be so confined. Individual assignment may appear unimportant, but each individual is concerned with the success of the year's work as a whole. It is hoped that the attendance will be good on this occasion. Individual calls for the meeting will be issued in ample time.

Fraternally, C. M. Rosser, *President.*

ORIGINAL ARTICLES

UNUSUAL ENDOSCOPIC EXPERIENCES*

BY

C. P. SCHENCK, B. S., M. D., F. A. C. S.,
FORT WORTH, TEXAS.

Points of resemblance between endoscopic cases are few. Cases may be grouped according to the condition to be relieved, or according to the more common foreign bodies encountered, such as coins, buttons, safety pins, nails, tacks, pins, etc., but rarely—if ever—is the condition or problem exactly like that met in some other case, even with similar foreign bodies. The length of existence of the condition, or the duration in situ of the foreign body, may make correction or removal easy or difficult. The difficulty may be increased by certain local conditions, such as granulation tissue above the foreign body, or edema, abscess, or stricture. Sometimes a grave heart condition may complicate the situation and add to the burden of responsibility. These different complications make some cases unusual and more worthy of report. A few of these unusual cases are presented in this paper.

CASE REPORTS.

Case No. 1.—Herbert L., aged 11 years, admitted to the hospial November 9, 1922, gave the following history: About six weeks previously, while riding in a truck, he had a piece of coiled wire spring in his mouth, and a jolt from crossing the railroad tracks caused the spring to fly down his windpipe. The radiograph showed this to be lodged in the right bronchus about 1¼ inches below the bifurcation. Dr. Will S. Horn made the following report on the lungs and heart:

"The lungs were negative except for a whistling expiratory note over the lower part of the right lung. The heart was enormously enlarged, the left border being 12 cm. and the right border 4½ cm., respectively, from the midsternal line, and the upper border behind the second rib. There was a palpable thrill all over the precordium on the left. The apex beat was not localized, and the entire precordium was heaving under the heart beat. There was presystolic roughening and a systolic blow over the mitral area, transmitted to the left axilla. The first tone at the apex was sharp and accentuated. The second pulmonic was unusually loud in the pulmonic area, and in the first interspace there was a systolic blow which could be transmitted from the mitral, or which might also be from a ductus arteriosus which had remained patent. However, the heart condition was diagnosed as mitral stenosis with insufficiency."

Here was a condition which enormously increased the responsibility of the operator. It was decided that a general anesthetic was contraindicated. The patient had a light supper, and the following morning breakfast was omitted. He was partially narcotized by morphin and hyoscin given at 6:30, 7:45 and 9:10 a. m., supplemented by cocain-adrenalin solution applied locally. The Bruening bronchoscope was passed, and at once attention was drawn to the marked moving of the tip, produced by the tremendous heaving of the heart mentioned above. This was cause for apprehension lest damage might be done to the enlarged heart. The foreign body was located in the right bronchus about 1 1/4 inches below the bifurcation, as shown in the radiograph. Granulation tissue just above the foreign body made a close approach and removal unusually difficult. It was grasped with a small hook, supplemented by slender forceps, and drawn against the bronchoscope, and all were then removed as a unit. It proved to be a wire spring of 5½ coils, 5/16-inch in diameter, ⅜-inch long, smaller at one end, so that it had the shape of a truncated cone. After remaining 48 hours for observation the patient was discharged with a temperature of 98.6° F., pulse 80 and respiration 24.

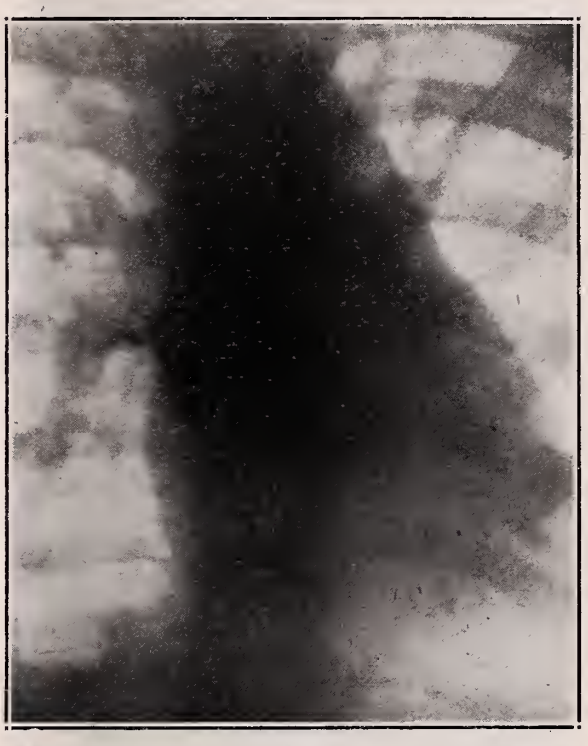

FIG. 1—Showing small coil spring in right bronchus (Case No. 1.)

Case No. 2.—Frank W., aged about 30 years, was working in his orchard about dark, September 6, 1922. His wife brought him a drink of water in a small pail, from which he gulped down several big swallows of water, having failed to notice a grass-bur floating on the surface. He immediately felt an excruciating sticking pain in the right side of his throat at about the level of the larynx. At about 10 p. m., an examination with the throat mirror showed that the foreign body was not in the pharynx. We tried to pass the esophagoscope under local anesthesia, but vomiting and retching made this effort unsuccessful. The next morning, we gave ether to the point of surgical relaxation, and successfully passed the esophagoscope, carefully examining all parts of the esophagus as the instrument descended. It was not until the instrument reached the level of the 7th rib that the grass-bur was found, and then on the left side, opposite the side of greatest pain. From this site it was removed with grasping forceps. From my own experience, and that of others, I would say that grass-burs are not uncommon in the air passages (I have removed three from the larynx) but are very rarely found in the esophagus.

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 7, 1925.

Case No. 3.—Marcelle D., a baby girl of ten months, was crawling on the floor and got a piece of apple core in her air passages. There was much dyspnea, loud throaty inspiration, and a harsh croupy cough frequently repeated. There was a marked retraction of the supraclavicular spaces and floating ribs with each inspiration. Without anesthesia the child was wrapped in a sheet and the laryngoscope passed. The larynx was edematous, and a dirty white exudate in the larynx greatly resembled a diphtheritic membrane. Looking between the cords during inspiration, a foreign body could be seen about one inch below the cords. No bronchoscope was small enough to pass through the edematous larynx, hence it became necessary to pass the delicate tube-forceps between the cords during inspiration, and then take advantage of the momentary opportunities for observation afforded when the cords were separated during each inspiration. By this means it was possible to grasp and remove the foreign body. No reaction followed, but on the contrary the breathing was markedly improved at once, and within a few hours was normal. The foreign body consisted of part of the shiny hard sheath within which the seeds lie in an apple core. This was shaped like a butterfly, each wing being about 1/4-inch long, slightly smaller in area, and about the same distance apart, so that the foreign body largely obstructed the trachea.

FIG. 2—Showing large fence staple lying crosswise in stomach (Case No. 6.)

Case No. 4.—Baby W., aged 4 years, referred July 14, 1924, had swallowed lye at the age of one year, which produced an esophageal stricture. At various times he had had bougie treatment, with fair success. At various times food would be regurgitated after several swallows, and for two weeks before being referred he had been unable to retain any food. The day before I saw him there had been an attempt to pass a bougie, but without success.

Upon admission, the little patient looked like a child suffering from marasmus. He had literally been starving, and drying up from lack of liquids. The skin was dry and parched, and poorly concealed the outline of his bony skeleton. Retention enemas satisfied the thirst to some degree during the 24 hours before operation. Observation of attempts to swallow showed the esophagus to be absolutely impervious to solids or liquids. A gastrostomy was seriously considered, but an attempt at dilatation through the esophagoscope was first thought advisable. The child was lightly anesthetized with ether and the Jackson esophagoscope passed as far as a semilunar band, which bridged half the diameter of the esophagus just below the level of the larynx. Beyond this the esophagoscope would not pass. By using a large Bruening esophagoscope through which olive-tipped bougies would pass, this band was stretched, and a smaller esophagoscope would then pass into what proved to be a sacculation about 1½ inches deep and ¾ inches wide. At the lower end a minute opening was found. This was entered for ¼-inch with the smallest sized forceps closed, and then the blades were spread and withdrawn. This procedure was repeated over and over, gaining distance each time, until finally the stricture was passed.

Then a large ureteral catheter was passed into the stomach, and with a large Luer syringe and needle several ounces of water were introduced. The forceps was then passed through the nose into the pharynx, and the free end of the catheter was drawn out through the nose and fastened to the cheek with adhesive tape. The child's arms were splinted with plaster of Paris casts to prevent bending of the elbows, so that the catheter could not be withdrawn by the little patient. The catheter was left in place 24 hours. Milk was introduced liberally at three-hour intervals, and water freely between feedings. At the end of 24 hours the catheter became obstructed and was removed. It had remained in position long enough, however, for some further relaxation to occur, and the patient became able to drink liquids readily.

After about two weeks the boy was brought back for further dilatation. A most remarkable improvement had taken place, and he had gained in flesh to the extent of appearing fat and robust like a normal child. At this time he was again etherized and the esophagoscope was passed, and the opening in the lower end of the sacculation easily found. Gradual dilatation of the passage into the stomach was produced by the successive passage of Jackson's esophageal dilators, numbers 3, 6, 9 and 12 French.

In spite of urging the father to bring the boy back for further dilatation before allowing the condition again to become grave, he has not returned.

Case No. 5.—Bobbie E., aged 27 months, was suffering from some hoarseness and obstruction to breathing which had begun about eight months previously. He had had croup four months previously, with marked dyspnea and retraction of the floating ribs and supraclavicular spaces. The medical attendant thought it was diphtheria and gave three injections of antitoxin. After 48 hours had elapsed without improvement, the writer was called into consultation, and agreed that the case appeared to be one of laryngeal diphtheria, and did an intubation with two different sized tubes. This manipulation caused violent vomiting and retching, and the tubes could not be long retained, but the dyspnea was so markedly relieved that the tubes were left out. The recovery from the acute illness was uneventful, but some obstruction to breathing continued, and the family thought it was asthma. The voluntary muscles had to be used much of the time during inspiration, and the obstruction was such as to cause a marked deformity of the ensiform tip of the sternum.

Listening over the larynx with the stethoscope, one could hear, immediately after expiration began, a little flop, as though something had been blown

out between the cords; and then immediately after inspiration began, another flop, followed by an asthmatoid wheeze, as though the inflow of air were partially impeded. On November 7, 1924, and again on November 10, laryngoscopy was attempted in the belief that polyps would be found in the larynx. The baby's resistance was so strenuous, however, that he literally outfought us. General anesthesia was in my judgment contraindicated, because it would have thrown the voluntary muscles of respiration out of action, and would have resulted almost certainly in asphyxia. Some method of restraint had to be devised which would be effective, and at the same time harmless. On November 17, a section of beaverboard about 15 by 30 inches was secured and the boy laid upon it and a rough outline of his arms and legs traced with pencil. Slots were then cut and bandages passed through these and the boy tied to the board, so that each arm would be secured at the axilla and wrist, and each leg at the crotch, knee and ankle. Board and boy were then wrapped closely in a sheet. His efforts to free himself were thus expended against unyielding mechanical restraints, and he soon became sufficiently exhausted to sleep fitfully under the small dose of morphin and atropin which had been previously administered. The laryngoscope was then passed and a large papilloma found, which was shaped like an inverted cone, with a slender filamentary attachment below the vocal cords. Upon expiration, this would be blown out of the larynx, but upon inspiration it would sink like a ball valve into the glottic chink, and block about 4/5 of the breathing space.

It was found that the Jackson esophageal speculum gave a much better view of the larynx than the laryngoscope, due to its more slender tip taking a better hold of the elusive epiglottis than would the tip of the laryngoscope. The papilloma was removed as completely as possible with grasping forceps, very slight bleeding resulting. Improvement in the child's breathing was nothing short of spectacular, and there was practically no reaction.

Relief was pronounced for weeks, but by the end of three months the obstruction again demanded relief. On February 18, using the same method of restraint, the esophagoscope was again found more useful than the laryngoscope, and the polyps were again cleared out. The great improvement the baby had made in the three months, made his physical resistance more formidable than at the first operation, but it was the mechanical restraint that made success possible. It is anticipated that repeated removals will be necessary, as is so frequently the case with this type of benign growths. The child's condition was reported as satisfactory on May 4, 1925, with very little obstruction.

Case No. 6—Elizabeth B., on September 13, 1923, when 1 year and 8 days old, swallowed an ordinary fence staple. She spit up a small amount of blood shortly afterward and there was some difficulty in the passage of the staple to the stomach. The parents took the baby to the Baptist Hospital, where they were advised to take no action, as the foreign body would probably pass per rectum. No inconvenience was suffered by the baby after the staple reached the stomach. It was being breast-fed, but this was supplemented by other feeding after the accident, to give more volume to the intestinal contents and thus favor expulsion of the foreign body. During the ensuing two months many radiograms showed the staple to be still in the stomach. On November 15, more than two months after entering the stomach, the foreign body was shown by radiograms to be lying directly in front of the body of the twelfth dorsal vertebra, and midway between the anterior and posterior surfaces of the body, with its flat plane parallel to the anterior and posterior body surfaces, and the head curve directly toward the right side. From this position it was assumed that the staple was lying in the pyloric region of the stomach. Immediately after the picture was inspected, ether was started at 9:30 a. m., and exploration of the abdomen was made through a three-inch upper midline incision by Dr. Chas. Harris, assisted by Dr. E. H. Bursey. The stomach was thoroughly explored from cardiac to pyloric openings, and the intestines explored throughout over and over again, but no foreign body could be found. In an effort to determine whether the staple had been ejected from the stomach into the esophagus during vomiting induced by the ether, the stomach tube was passed into the stomach,

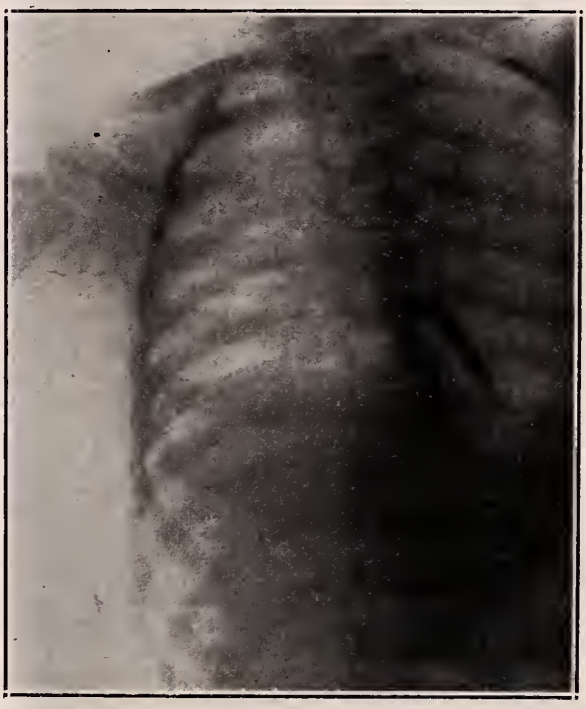

FIG. 3—Same case as in Fig 2, showing staple in esophagus, from which it was later recovered by esophagoscopy.

but met no resistance nor obstruction. The father became displeased, and would not allow further radiograms to be taken, so the wound was closed, and recovery was uneventful, but the whereabouts of the foreign body remained a mystery.

On January 27, 1924, radiograms taken by Dr. Tom Bond showed the staple to be in the esophagus, points down and slightly to the left, at about the level of the seventh rib. The conclusion was reached that during etherization the vomiting induced by the anesthetic had resulted in the ejection of the staple from the stomach into the esophagus, from which it could not again pass into the stomach because of the downward position of the points.

On January 28, 1924, under ether anesthesia given by Dr. A. W. Montague, Jr., the Jackson 4-millimeter infant bronchoscope was passed into the esophagus, the foreign body located and removal attempted. This failed through lack of sufficient working space to securely grasp the curved end of the staple. The Jackson 5-millimeter child bronchoscope was then passed, and the increased working space available resulted in a ready grasp of the staple, and the foreign body, forceps and bronchoscope were removed as a unit.

The fence staple was 1⅛ inches long by 9/16-inch wide, and was greatly disproportionate to the size

of the food passages of a year old baby. The child was slightly more than one year and two months old, when the abdomen was explored and without finding the staple, it was 1 year and 4½ months old when the staple was removed by esophagoscopy, after having been in the stomach over two months and later, in the esophagus more than 2½ months.

ABSTRACT OF DISCUSSION.

Dr. Geo. S. McReynolds, Temple: It is very gratifying to note that more interest is being paid to the foreign body problem than was formerly the case and I believe that this will result in the saving of many lives. Dr. Schenck is to be congratulated upon the termination of these very unusual cases. I am inclined to think that he should have been able to pass the 4 mm. bronchoscope on Case No. 3, and that he would probably have had easier sailing had he done so. I have only recently seen a little Mexican child about 1 year old, but very small (weighing only 17 pounds) that had a piece of apple peel lodged in the trachea, in which I passed the 4 mm. bronchoscope with very happy results.

Case No. 4 is very interesting especially from a legislative standpoint, as an effort is now being made to have the legislatures of the various States pass legislation requiring all manufacturers of lye to place on the container in big box car letters notice of the danger of the product and cautioning the purchaser in such a manner that he will keep all containers of lye out of the reach of these little fellows. These are entirely avoidable accidents, should a little care be used by purchasers of these products, and had they ample notice. Many children would thus be protected that now go to untimely graves or suffer a life that is almost as bad, and it is to be hoped that our own State will before long take cognizance of these conditions and attempt to correct them.

Case No. 5 very clearly demonstrates the doctor's ingenuity in meeting a difficult situation with the apparatus he has devised for retaining this youngster in such a position that he could relieve the child's difficulties.

Dr. Bertha McDavitt, Temple: I feel sure that it was with a good deal of anxiety that Dr. Schenck operated on the child with the heart lesion. However serious the condition of the patient, one feels justified in making the attempt at removal of the foreign body, because these are truly life-saving operations. A recent case we had was baffling. The *x*-ray showed the foreign body to be a button, apparently perforated by two holes, located in the left bronchus. During the attempts at removal, because of the peculiar shape of the button, it would slip from the grasp of the forcep first into one bronchus and then into the other. We finally succeeded in removing it and it proved to be an ornamental button with one flat side and the other rounded with the two perforations for the needle on the under-flat-surface, showing why we had had such difficulty in grasping the foreign body firmly enough with the forceps to completely withdraw it.

Dr. R. C. Lynch, New Orleans: Jackson and I have always been at outs on the subject of general anesthesia. Only in those cases where there is a very decided tracheal obstruction is general anesthesia contraindicated. In 670 cases of foreign bodies, we have had no untoward results from general anesthesia. I am, therefore, strongly in favor of using a general anesthetic. I think the danger of the general anesthetic in the hands of an expert anesthetist is very much overrated. It is one of those fears which have been handed down to us from former years. It comes from the opinion held with regard to the dangers of chloroform. General anesthesia is the method of choice because it does away with the necessary holding apparatus and traumatism due to the struggles of the patient. I was interested in the report of the case where the doctor caught the foreign body "on the fly."

In one of the cases we did under suspension laryngoscopy we were able to separate the vocal cords with little retractors and allow the patient to flip out the foreign body. Ordinarily, the foreign body must be fixed by the bronchoscope. Sometimes marked edema in the trachea may be developed by the passage of a foreign body up and down. I will refer to our present method of treating strictures of the esophagus which are permeable. The condition can be healed by the passage of a small rubber duodenal tube. This can be left in the esophagus for weeks if desired and fluids and food can be readily passed. Nothing softens up strictures so much as a rubber tube left in place. With regard to tumors, the case reported brings to mind subglottic laryngitis, which is often mistaken for diphtheria. Antitoxin does not relieve the obstruction and on direct examination of the larynx you will see a swelling below the cords. This can be best dealt with by cauterization of the mass. In papilloma occurring beneath the cords, we take off the tumor with the actual cautery. The one best bet for this condition is the actual cautery. This must replace fulguration, radium, diathermy, and all of the medical agents such as alcohol, trichloracetic acid, etc., which are in the discard.

I remember one case of an open safety pin in the stomach, which finally went through the pyloric end of the stomach into the gut and from there had to be removed by abdominal section. The esophagus is distensible beyond all imagination and therefore will accommodate foreign bodies out of all proportion to the age of the patient. You should not be surprised to find large foreign bodies in the esophagus, but the finding of the staple in the esophagus was a very unique case.

I use the Mosher tubes practically altogether, because they are so much easier to use on account of their elliptical shape and because they give three times as much space as the Jackson tubes. They are easier to introduce and you can use a larger tube, considering the size of the patient, which gives you more opportunity to do whatever is necessary.

Dr. M. E. Taber, Dallas: I began work in bronchoscopy using first Collar's modification, in 1909. Then I got the Bruening and then the Jackson bronchoscopes. When I have a difficult case, such as a lung abscess, I like to work with the Collar instrument. There is no standard of just how to do bronchoscopic work. Sometimes, you are convinced that a case is easy but you may find it exceptionally difficult. Any man who is willing to do foreign-body work is to be commended, knowing that the foreign body is about all he will get out of it. In one case a small hatpin was in the trachea, which was freely movable. During manipulation it was blown out through the larynx. In another case we kept the patient a long time under the general anesthetic and the foreign body was blown out of the windpipe. I anesthetized the cords with a local suspension and had the foreign body blown out. We all have the unusual experiences. I, like Dr. Lynch, wish I were able to work without anesthesia, but find the general anesthetic of great service. The men who think the instruments are going to do the work linger too long and traumatize the tissues, and that is what increases the mortality. I think some of us have a lower mortality because we get the cases earlier. Sometimes the tissues are so bruised that I would rather some one else had the case. In 1920, I reported over 400 cases of foreign bodies removed at St. Paul's

Sanitarium. These cases represent great sport, lots of hard work, and very little compensation.

Dr. Schenck (closing): I desire to thank especially both Dr. Lynch and Dr. Taber who, from their large experiences, have contributed so much to this discussion.

SEPTIC PHLEBITIS OR LATERAL SINUS THROMBOSIS—OTIC ORIGIN. REPORT OF CASES.

BY

W. D. JONES, M. D., F. A. C. S.,
DALLAS, TEXAS.

The term "Phlebitis" means an inflammation of the vein and when used by otologists it usually means the vein in closest proximity to the infected area, which is the sigmoid portion of the lateral sinus. The inflammatory process may involve only the outer walls of the sinus when it may well be termed phlebitis externa or peri-sinusitis, or it may extend to the inner wall of the sinus, causing a partial or complete occlusion, sinus thrombosis.

The anatomical relations and the cellular structure of the mastoid portion of the temporal bone and its frequent involvement following middle ear infections, are sufficient to keep the otologist on the alert and justify his relief of anxiety when he has opened a diseased mastoid in which operation has been delayed.

It is only necessary to refresh your anatomy and note the thin plate of bone that separates the sinus from the cellular structure of the mastoid and the venous circulation in this area that drains directly into the large intracranial veins, to wonder why septic phlebitis or sinus thrombosis is not a more frequent complication to mastoid infection than is found. In view of this fact, the author wonders if many complications which are atypical or produce few alarming symptoms, are never diagnosed and recover after removing the primary cause by a simple or a radical mastoid operation. For instance, may not a parietal or mural clot frequently occur in the sinus, and yet a complete recovery result without any pronounced symptoms of septic absorption following removal of the chief source of infection by a mastoidectomy? It is with this in mind that I have become partial to removing the cortex with a ronguer and completing the operation with curettes. I use this method when there are any symptoms or when suspicious of intracranial involvement.

Among the predisposing causes may be mentioned all the chronic and acute infectious diseases that cause a sudden depression and that lower the power of resistance. Therefore, among such infections that are more frequently complicated by middle ear infections are scarlet fever, measles, lagrippe, and influenza.

From an anatomical standpoint, thrombosis may occur through the circulation or by direct contiguity from necrosis of the bony wall. You have in your mastoid surgery doubtless observed the small cortical veins occluded by thrombi giving a bluish, "shaven beard" appearance to the cortex, upon separating the periosteum. This process happens in the cellular structure of the mastoid before dissolution or breaking down, and in this manner may cause septic phlebitis without any necrosis of the inner plate. In one of my cases previously reported[1], a definite diagnosis was made from the previous history, plus the chill and leucocytosis, and there was no necrosis near the sinus or dissolution of the cells. All the infection was around the antrum, presenting a typical case where the infection traveled by the circulation. When thrombosis occurs by contiguity there may be necrosis plus dissolution of the inner table, with granulations covering the sinus wall, or there may be no dissolution of the bony wall, the latter appearing devitalized or showing beginning sclerosis, and the sinus wall bathed with pus over the entire sigmoid portion, with no granulations. I saw this in two of the six cases that have occurred in my practice in the last sixteen years.

Early writers found that practically all of these cases were caused by the streptococcus. However, it is now known that any microorganism capable of causing necrosis, dissolution and pus formation in the cellular structure of the mastoid, may be the predominant organism causing septic phlebitis or sinus thrombosis, and among the organisms found are the streptococcus, pneumococcus, staphylococcus and bacillus mucosus capsulatus (streptococcus hemolyticus).

Phlebitis externa or peri-sinus abscess is frequently encountered during the course of mastoid operations, having produced no symptoms by which it would be possible to make a diagnosis. Little consideration or importance is usually attached to this, unless septic symptoms of a grave nature have preceded such findings. It should be remembered that a peri-sinus abscess may occur without granulations, and it is this condition that should cause the greatest anxiety (I must confess that the sinuses that I expose that have no granulations give me more concern, for it is very hard to determine whether the sinus is involved, unless it be clotted so firmly

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*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 7, 1925.

1. Jones, W. D.: "Report of Case of Lateral Sinus Thrombosis," Texas State Jour. of Med., Vol. x, p. 283, November, 1914.

or unless the walls are so atrophied as to be able to palpate the firm, cord-like resistance). When the sinus is uncovered and granulations are found, neither sinus nor granulations should be disturbed, unless characteristic symptoms of septic absorption are present. It is meddlesome surgery to curette or disturb granulations on a sinus wall, as they are barriers thrown out by nature for protection.

Just how long a peri-sinus abscess could exist without causing thrombosis and complete blocking of the vessel, I cannot say; it would, doubtless, depend upon the amount of pressure and the confined infection. I saw one case where the mastoid abscess had been draining for four months through a fistula just posterior to the tip at the beginning of the digastric groove. In operating, I followed this fistula into a peri-sinus abscess around the sigmoid sinus. The symptoms that are characteristic of sinus thrombosis occur at the stage of disintegration or at the time of entrance of the micro-organisms directly into the blood stream, causing a sudden elevation of temperature of from 103° to 105° F., and a rise in the puse rate in proportion. This sudden rise in temperature may be accompanied by a distinct rigor, chill or a chilly sensation, and followed by a profuse perspiration. This is especially true in the terminal stages of the infection. The temperature remains elevated for a few hours and rapidly drops to normal or near normal and remains so for from a few hours to 48 or 72 hours, during which time there in a general sense of well being and comfort. Suddenly, the temperature rapidly rises to its former high level, thus assuming a periodic course. In four of the cases that have come under my observation there was a distinct chill, in two cases recurring at twenty-four-hour intervals, in one in twelve hours and in the other in two hours. All four cases were accompanied by a rise of temperature from 103° to 105° F., and with a pulse rate increased proportionately. There is usually a marked increase of leucocytes which may range from 15,000 to 25,000, and even higher. In one of my cases, it was 16,000, in two cases above 20,000, and in another patient who had a double mastoiditis, the leucocyte count taken right after a hard chill, reached 44,800. The increase in leucocytes follows the usual increase in blood stream infections, whether the focus is in the sinus or in some other part of the body.

Much has been written during the past few years, with reference to the diagnostic value of blood cultures in sinus thrombosis. It is my belief that blood cultures verify your diagnosis when positive, but would be extremely hazardous to follow when negative; no surgeon should allow the blood culture to determine the course of procedure in the face of clinical symptoms in sinus thrombosis. A positive blood culture means bacteria in the blood stream and any focus of infection may be the source. A patient may have a bacteriema from a mastoid infection and recover after a simple mastoidectomy.[2] I recently operated a four-year-old child that later developed symptoms of phlebitis, with a leucocyte count of 22,000. At the second operation some unhealthy granulations were removed. The sigmoid portion of the sinus was exposed and after painting a small area of the sinus with iodine, blood was withdrawn from it with a small needle and syringe, and a positive culture of Friedlander's bacillus obtained. The symptoms subsided and the patient made an uneventful recovery with no further surgical interference than a simple mastoid operation. Of the past five cases that have come under my observation, the blood culture was positive in two cases and negative in three. The organism in one was a gram positive staphylococcus; in the other case the organism was the streptococcus hemolyticus. The clinical symptoms were as pronounced in cases showing negative cultures as in those showing positive cultures. Nausea, vomiting and headache may be present, but are not characteristic symptoms. Nausea and vomiting *were* present in two cases and headaches were complained of in two of the other cases. In the third case in this report the headache was severe and was referred to by the patient as a "splitting" headache. The eye grounds were negative in all cases.

The mental condition is given considerable importance by some writers and clarity of mind is considered characteristic of sinus phlebitis.[3] In three of the cases to which I have made reference, the mind seemed unusually clear for the patients to be as sick as I knew them to be. Questions were answered readily and always to the point that they felt all right, or fine.

The appearance of the exposed sinus is of little value in determining its condition. The sinus may be bathed in pus, with or without granulations; in either case, if the characteristic symptoms are present, the sinus should be dealt with surgically. In suspected thrombosis an uncovered sinus that has no protective granulations causes greatest anxiety and its condition cannot be positively interpreted without opening, unless it shows a dull, glazed appearance with positive resistance to palpation. Operation is indicated when there is a mastoiditis, plus symptoms of

2. Duel and Wright: "Clinical and Pathological Significance of Bacteriaemia in Suppurative Otitis Media," N. Y. Med. Jour., October 30, 1909.

3. Smith, S. MacCuen: Atlantic Med. Jour., June, 1924, p. 559.

periodic septic absorption; and the operation that will come nearest to isolating the field of infection from the general circulation, should be selected. The first attempt to treat this condition surgically consisted in simply removing the clot without obliterating the lumen of the sinus. The next stage was removal of clot or outer sinus wall, obliterating the lumen and plugging the sinus above and below. It was quite obvious that the above procedure only partially eliminated the field of infection, so ligation of the internal jugular vein and removal of the infected clot and sinus wall is the method most universally adopted by surgeons at present. There are a few who resect the internal jugular, but there is no good reason for so doing unless there is a clot in the vein.

Following this brief discussion I wish to report the following cases:

CASE REPORTS.

Case No. 1.—H. S. T., aged 7 years, visited my office on December 13, 1923, with a severe cold and earache in his right ear. The drum was incised and warm boric irrigations with an ice bag to ear were ordered. His ear discharged for about two weeks, and following this he had a severe attack of bronchial pneumonia. While recovering from pneumonia, both ears began to ache and both drums were incised on January 16, 1924. Very little drainage followed, and two days later both drums were again opened. At this time there was tenderness over the right mastoid. Both ears were irrigated with warm boric solution and ice bags applied constantly to both mastoids, except when patient was asleep at night. His temperature ranged from 101° to 102° F. This irregular course of temperature continued, with tenderness over both mastoids, until February 6, when the patient had a slight chill. On the morning of the seventh he had a hard chill, when a blood count was taken with the following report: Red cells, 4,520,000; leucocytes, 44,800; polynuclears, 89 per cent; small lymphocytes, 9 per cent; large lymphocytes, 1 per cent; transitionals, 1 per cent, and plasmodia malariae, negative.

The patient was taken to the sanitarium and a double mastoidectomy was done. The right mastoid was operated upon first; the sinus was exposed and free pus covered the sinus over the entire sigmoid portion. There were no granulations over the sinus and the sinus wall had a glazed appearance. The wound was temporarily packed and the left mastoid opened and the sinus exposed. There were neither granulations nor pus found on the sinus wall, and after packing the wound the right internal jugular vein was ligated, iodoform plugs were placed at its knee and the sinus opened with a sluggish return flow from the jugular bulb. When the plug was removed there was a free flow from toward the torcular. Iodoform plugs were placed at both the torcular and jugular ends and the wound packed with iodoform gauze. The highest temperature for the next five days was 102.8° F., the lowest 98° F. On the seventh day following the operation the highest temperature was 99° F., and afterwards the temperature remained normal. The patient was discharged from the hospital two weeks following the operation and made a good recovery.

Case No. 2.—This patient was a male, aged 36 years. His previous health had been good. He gave a history of recurrent attacks of pain in the lower right quadrant of his abdomen. His present illness began March 1, 1924, following a cold, when he had a severe pain in his left ear, which was immediately followed by a sero-sanguineous discharge. On the following day, the discharge became more profuse, thick and tenacious and was of a yellowish-green color. He continued to have dull pain and a discharging ear until March 7, when he came to my office for treatment. Examination showed a discharge from the left ear, a bulging of Shrapnel's membrane, some tenderness over the left mastoid, a temperature of 101° F. and a pulse of 100. Under gas anesthesia, a free incision was made in the drum membrane and, as the patient lived out of town, he was sent to Baylor Hospital. An ice bag was applied to the left mastoid constantly and warm boric irrigations every two hours were ordered. The leucocyte and differential count showed: Leucocytes, 7,800; polynuclears, 73 per cent; small leucocytes, 23 per cent; large lymphocytes, 3 per cent, and transitionals, 1 per cent. The urinalysis was negative.

Under the treatment there was an apparent improvement for five days, the highest temperature being 100° F. and the lowest 98° F. *X*-ray films of both mastoids, taken March 11, 1924, showed the right mastoid to be of the large pneumatic type with clear, normal cells. The left mastoid was of the same type and showed definite haziness and thickening of the cell walls throughout the anterior half of the mastoid structure. There was markedly increased density above and around the auditory meatus. "Opinion: Beginning mastoiditis on left side."

On the twelfth, the temperature went to 101° F., the pulse rate 90, with a leucocytosis of 19,200 and 88 per cent of polynuclears. The patient was prepared for a simple mastoidectomy the next morning. Following the usual incision and technique, a simple mastoid operation was performed, and a large pneumatic mastoid was found, the cells filled with pus and partly broken down. There were no exposures, and after exenteration of the cells, the wound was packed with sterile gauze. On the sixteenth the patient's highest temperature was 102° F. at 8 p. m., and for the next three days the highest temperature was 100° F. and the pulse 100. He complained of pain in the left mastoid region, and on the twentieth, complained of pain in wound, the highest temperature being 101° F. On the twenty-third he complained of soreness in the region of the operation, headache and pain in the left eye.

On the twenty-fifth, the highest temperature was 100.4° F., the pulse 80. The blood count showed: Leucocytes, 9,950; polynuclears, 73 per cent; small lymphocytes, 18 per cent; large lymphocytes, 6 per cent; large mononuclear leucocytes, 2 per cent, and transitionals, 1 per cent.

Because of no improvement in the patient's general condition, it was decided to reopen the field of operation for investigation, and, on the morning of the twenty-sixth, the remainder of the original incision was opened, granulations were removed, the sigmoid portion of the sinus was exposed, and a firm clot was found extending from the knee to near the jugular bulb. Without further disturbance, the internal jugular vein was ligated above the facial vein and the neck wound closed. The sigmoid portion of the sinus was opened and the clot removed with external wall. A return flow was obtained from both the jugular and torcular ends, and so iodoform plugs were placed and the wound packed. A smear from the clot in the sinus showed gram positive cocci and diplococci. The culture was negative from both the smear and the blood.

The day following, the patient's highest temperature was 103° F. and pulse 106, and he was slightly nau-

seated The systolic blood pressure was 95. On the second day following the operation, the temperature about like the day before, and the systolic blood pressure was 90; the diastolic not being obtainable. The heart sounds were indistinct, but no murmurs were heard. His appetite was poor. For the next six days the patient remained fairly comfortable, his highest temperature being 100° F., his pulse 96, and the chart read, "Fairly good days." On the seventh day following the operation, the temperature rose to 104° F., pulse 108, and the patient had an uncomfortable day; on the eighth day, the highest temperature was 100° F., the pulse 84, and respiration 20; and on the ninth day the highest temperature was 102° F. and the pulse 98. 10 cc. of a 1 per cent solution of mercurochrome was given intravenously on this date at 5 p. m., and following this the patient was nauseated and vomited orange-colored fluid. At 10 p. m. he began to suffer from diarrhea and abdominal pain. At 8 p. m. the next day the patient's skin was dry and showed that he had been fairly well dehydrated. Liquids were forced and the diarrhea was checked. For the next day or two the highest temperature was 100° F. and the pulse 96. The urinalysis was negative. The blood count showed: Leucocytes, 10,325; polynuclears, 66 per cent; small lymphocytes, 25 per cent, and large lymphocytes, 9 per cent. From this time on, the patient made rapid recovery and was discharged from the hospital a week later.

Case No. 3.—Mrs. W., aged 26 years, had had the usual diseases of childhood, and had undergone an appendectomy ten years before and a cholecystectomy nine years previously. She had one child ten years old, a normal delivery, and no miscarriages. She had influenza the last part of January, 1925, and was sick three weeks. Her present trouble began March 3, 1925, with a chill, severe headache, sore throat and a temperature of 105° F. The next day she had earache, and on the fifth, the ear drum was incised and drained pus, from which she gained some relief. Her temperature was not over 102° F. until the night of the tenth, when she had a chill and rise of temperature to 105° F., accompanied by a severe headache. On the eleventh, she had some tenderness over left mastoid, the middle ear was draining fairly well, and the temperature was 105.6° F. The left ear drum was again incised, the incision extending up into canal wall. On the twelfth, the patient had two chills, the temperature rising to 105° F. and the pulse following each chill ranging from 98 to 130 per minute. The blood count was as follows: White cells, 29,000; polynuclears, 92 per cent; small lymphocytes, 5 per cent; large lymphocytes, 1 per cent; transitionals, 1 per cent; eosinophiles, 1 per cent. The blood culture showed numerous chains of hemolytic streptococci.

On the thirteenth, the patient had one chill in the morning, and 6 cc. of a 1 per cent solution of mercurochrome was then given intravenously by Dr. Winans. The administration of mercurochrome was followed by chilly sensations and a rise of temperature to 106° F. On the fourteenth, she complained of severe pain in the left arm and had a rigor lasting ten minutes with a temperature of 103.6° F. On the fifteenth, she had a chill, a temperature of 104.4° F., and her left arm was badly swollen about the elbow; 11 cc. of a 1 per cent solution of mercurochrome given intravenously. On March 16, she had a chill, a temperature of 104° F. The blood culture showed no micro-organisms. On March 18, she had one chill in the morning with a temperature of 105° F., and 10 cc. of mercurochrome was given at 11 a. m. At 1 p. m. she had a rigor, and at 3 p. m. a temperature of 106.4° F., with another rigor at 9 p. m., and a temperature of 103° F. On March 20, she had a hard rigor at 3:45 a. m., and complained of severe pain in the back of her head. She had a second rigor at noon and a third at 9 p. m., with a temperature of 104.4° F. The tenderness, which had partially subsided following the second paracentesis, became more pronounced. She was admitted to Baylor Hospital at 7 a. m., March 21, and her blood count was as follows: White cells, 23,400; polynuclears, 75 per cent; small lymphocytes, 18 per cent; large lymphocytes, 5 per cent; large mononuclear leucocytes, 2 per cent.

At 9:30 a. m., a mastoidectomy was performed, and large cells filled with pus and soft, spongy bone were found. The sinus was exposed over the entire sigmoid portion; the sinus wall looked suspicious, but I could not determine if the sinus was clotted from its appearance. On account of the condition of the patient the wound was packed and the patient returned to bed. A swab from the mastoid was taken for a smear and culture. No organisms were found in the smear, but a 48-hour culture showed a pure culture of the hemolytic streptococcus.

The patient left the operating table with a pulse of 150 per minute. At 12:30 p. m., her pulse had gradually dropped to 126 and her temperature to 102° F. At 10:30 the next morning, one ampule of digitaline was given hypodermatically. At 4 p. m. the temperature was 105° F. and the pulse 120. The day following the operation the lowest temperature was 98.2° F. and the highest 104° F. The pulse ranged from 100 to 130.

On the fourth day following operation, the wound was dressed and irrigated with Dakin's solution. Her highest temperature was 101° F., and she had a fairly good day. At 8:30 a. m., she was given 10 cc. of a 1 per cent solution of mercurochrome intravenously, with no reaction. On the twenty-seventh, six days after operation, the patient's temperature was normal at 8 a. m., but she complained of severe headaches, and at 3:30 p. m. had a chill lasting fifteen minutes, and was given ⅙ grain of morphin hypodermatically. At 5:30 p. m. she had a second chill lasting twenty minues; I saw the patient in this second chill, which was very severe. There was a rise of temperature to 102.4° F. The blood count showed: White cells, 19,700; polymorphonuclears, 65 per cent; small lymphocytes, 30 per cent; large lymphocytes, 3 per cent; large mononuclear leucocytes, 1 per cent; transitionals, 1 per cent. The patient was nauseated and vomited a small amount of brown fluid. On the twenty-eighth, seven days following the first operation, the mastoid wound was again opened and the sinus showed no signs of granulations covering it. Through the usual incision along the anterior border of the sternomastoid muscle the internal jugular vein was ligated below the facial, a rubber tissue drain was placed and the wound closed. The sinus was further exposed slightly posterior to the knee and as near the jugular bulb as possible, and was opened with a scalpel and small scissors. Brownish pus filled the sinus from just below the knee to the jugular bulb; there was no breaking down of the clot toward the torcular from the knee of the sinus. A smear from the sinus showed leucocytes and few gram positive cocci; and a 48-hour culture showed a pure culture of hemolytic streptococci. A microscopic section of the sinus wall showed dense fibrous tissue invaded by large numbers of leucocytes and partially necrotic in one localized area.

There was no return flow from the jugular bulb after removal of the clots and pus, so the lateral sinus was uncovered toward the torcular, the clot removed and a return flow obtained about one inch posterior to the knee of the sinus. An iodoform plug was placed and the wound packed with iodoform gauze. Following the operation the patient had con-

siderable difficulty in voiding, as she was given several hypodermics for pains in her head, which were quite severe. For three days following the operation the highest temperature was 102° F., the patient nauseated at intervals and complained of severe pain in the back of her head. On the fourth day, her temperature went up to 103° F. and her pulse to 112. She had a very uncomfortable day. Following this, her temperature ranged from 98° F. to 101° F., until a few days before leaving the hospital on April 17, after which it remained normal.

COMMENTS.

There was an unusually high leucocyte count in Case No. 1, and a typical clinical picture.

In Case No. 2, there were atypical symptoms, a temperature of 102° F., low leucocyte count and no increase in polymorphonuclears. The sinus was firmly clotted. The fact that the case was operated before disintegration, probably accounts for the indefinite symptoms. In my opinion, there is no benefit derived from giving mercurochrome, and it caused discomfort to the patient for ten or twelve hours. It is quite likely that this patient would have recovered by dealing with the sinus alone, without ligating the internal jugular. However, not knowing the clot was sterile, ligation was the safest procedure.

Case No. 3 is interesting on account of the pure culture of hemolytic streptococcus taken from the median basilic vein early after the onset of the infection, and later verified by culture from the lateral sinus, and on account of the patient recovering; also the number of chills, the last two occurring two hours apart and very severe. The mastoid emissary and both the superior and inferior petrosal sinuses were clotted. Several doses of mercurochrome were given, some of them followed by severe reactions and all except one given at intervals for two weeks before ligation of the internal jugular, without any apparent benefit before the focus of infection was eliminated.

ABSTRACT OF DISCUSSION.

Dr. J. H. Foster, Houston: I would say that if Dr. Jones' report embraces his entire series of cases, he is to be congratulated on his results. My own experience has not been so good. In my hands, these cases of lateral sinus thrombosis have shown a mortality of 25 per cent, the majority of which were complicated by meningitis. In two cases in children there was a marked general sepsis, with pneumonia. However, in pure cases of sinus thrombosis it is merely a question of getting the inflammation cut off. I remember, a good many years ago, seeing a case operated on after four months standing. There were typical sinus thrombosis symptoms, and later the patient came to operation on account of a subperiosteal abscess. The operation showed a complete obliteration of the lateral sinus, which was replaced by a cord-like, organized mass.

Some years ago I saw a case where a typical mastoiditis existed, but operation was refused. I did not see the patient again for a year. Irrigations were conducted at home and this patient had chills, fever and sweats for a month. He became almost a skeleton and was very jaundiced. This must have been a case of this character which organized and healed. Recently, I have seen two cases of double otitis media without mastoid symptoms, which showed typical symptoms of phlebitis. The diagnosis was phlebitis of the jugular bulb, but there was nothing to indicate which side was involved. These cases were treated symptomatically and were cleared up. Where one can localize the trouble, it is hazardous to depend upon nature to clear it up. Many years ago, resection of the jugular vein was usually advised in these cases, whereas now, a simple ligation is advised. I do not believe cases clear up as promptly unless the ligation is done high.

Dr. E. M. Sykes, San Antonio: I was interested in Dr. Foster's discussion of the spontaneous cure of phlebitis. In one of my cases which showed symptoms of phlebitis I found the sinus like a cord. All that was done was to open the mastoid thoroughly and drain and the case made a complete recovery. The question with me is when to ligate and when not to ligate. I would like to ask Dr. Jones how long he would wait before ligating and if ligation is a safe procedure in every case.

Dr. R. H. T. Mann, Texarkana: A child was recently brought to me for a mastoid following an attack of scarlet fever. The temperature was 104° F. I did a mastoid operation and thoroughly cleaned out the mastoid cells. Two days later, the child's condition was much worse, and a diagnosis of lateral sinus thrombosis was made. In consultation with the family physician, I advised the ligation of the internal jugular vein, which was refused. The blood culture showed that the infection was due to the streptococcus hemolyticus. The child had frequent rigors, and a temperature ranging from 97 to 105° F. An intravenous injection of a one per cent solution of mercurochrome was administered. The temperature was immediately reduced, and did not again exceed 103° F. A second dose of mercurochrome was given a few days after the first one and the child's temperature dropped to 99 and never again exceeded 100. The patient left the hospital in less than a week, and the mastoid wound was dressed by the family physician.

Mercurochrome has to be given accurately if the patient is to receive the greatest benefit from its use in certain forms of streptococcic infection. The best way to ascertain the dose to be given is to weigh the patient and give one cc. of a one per cent solution for every six pounds of body weight of the patient. For instance, if a patient weighs 150 pounds, 25 cc. of a one per cent solution is the dose. I have had similar experiences in conditions other than lateral sinus thrombosis, in which the results of mercurochrome were equally as gratifying as in the case reported above.

Dr. Jones (closing): With reference to mortality, I have had seven cases of my own and two referred by other physicians, with one death. Spontaneous cures undoubtedly occur and patients get well without operation. I had one case, which will be reported in another paper, that recovered without an operation.

With reference to Dr. Mann's experience with mercurochrome, I cannot agree as to its being of any benefit in disintegrating thrombosis of the lateral sinus. In fact, I think it is just about as well to give 1 cc. as to give 50 cc.

The periodic septic temperature in these cases is due to the fact that the clot breaks down at different stages and when a case recovers without surgical interference it is a case of the patient's resistance being able to take care of the infection.

Answering Dr. Sykes question as to how long one

should be willing to wait before operating, I would say that if there was a septic clot disintegrating and the symptoms verified this, I would operate as early as I was able to diagnose the case. I would not feel justified in allowing the case to die without an operation.

DIFFERENTIAL ABDOMINAL DIAGNOSIS.*

BY

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It seems to me that the two greatest drags to progress in all lines of human endeavor are self-satisfaction and following the line of least resistance. The masterpieces of literature have bubbled from great springs of discontent. In taking the easy way we miss the song of the bird in the wilderness. The besetting sin of the professional mind is to run in a groove. Surgery has become very common in this country, that is to say, it is being practiced by very many with good, bad and indifferent results. The brilliance of the operating room has dazzled not only the eyes of the public but those of the profession as well. In the United States there is no legal protection against incompetent surgeons or surgery, since the medical degree legally entitles, even if it does not qualify, the graduate to perform any operation he may choose to do. The only protection to the patient then is the conscience of the surgeon. At the present time our profession holds a position in regard to the public not unlike that of the old nobility who recognized the old law of *noblesse oblige.* So long as law does not regulate everything—and let us pray it never will—this obligation above all should not be forgotten by the surgeon.

Surgery rests upon the foundation principles of diagnosis, a properly planned and executed operation—technique—and surgical judgment. The last mentioned is a child of the other two. It is only with the first mentioned that this paper will deal.

Diagnosis today covers far more than christening a pathologic process with a name. The practice of diagnosis implies a working knowledge of biology, physiology and pathology, which latter is based upon the former two. Without life processes there can be no pathology—no disease. Physiology itself is often disturbed by involutions—that is, by retrograde processes occurring in organs which have been left behind in the forward march of the physical organism. In the four-footed animals ptoses are unknown. Puerperal lacerations may and do occur in the four-footed animal world, but rectocele, cystocele and procidentia uteri never, to say nothing of visceroptoses. In the human animal these things form no inconsiderable part of the physician's day's work. They are all biological; all disturb the physiology and in the end often give rise to things we designate as pathologic entities or processes. If in making diagnoses we can visualize processes, ever changing, progressive, we have advanced far from the "cut and dried" textbook names of our student days.

It is in chronic abdominal processes that we face our greatest diagnostic problems.

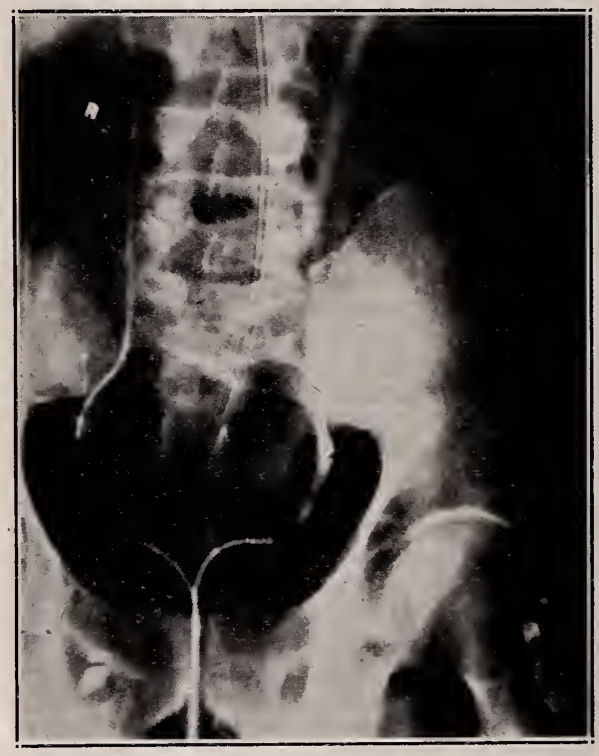

FIG. 1. Ureteral stricture with moderate dilatation. Patient had an appendectomy and shortening of round ligaments.

Quite often acute flare-ups aid us in coming to correct conclusions, as for example in the case of the appendix and gall-bladder. The protection of the neurotic against unnecessary surgery is beyond doubt a matter of the greatest importance. With every safeguard thrown about the patient, surgery, at its best, is an exhausting ordeal, and, at its worst, leaves unremediable disaster. Above all, it should not be made the catch-all for loose diagnostic methods and the dumping grounds for shiftless or incompetent internal medicine. It is not necessarily true that when all other methods of relief have failed that then the patient should become for that reason a surgical case. In my experience, rampant, secret fee-division has been responsible for more loose surgery than any other

*Read before the Thirteenth District Medical Society, at Wichita Falls, April 7, 1925.

one factor. Aside from incidental surgical lesions, the neurotic and the varied neurasthenic and hysterical cases are medical, not surgical, problems. In these cases the internist may need the assistance of the surgeon, but the latter should never be the dominating factor.

These people have suffered the most from ill-advised surgery, for the reason that, while protesting, they are always willing to have an operation done. After the first one, the usual excuse is "adhesions." Most of these patients have frequented doctors' offices enough or have had so many operations that they have acquired a better working knowledge of symptomatology than the average physician can boast. The elimination of this class of patients from surgical consideration begins with the taking of the history. Only by adroit questioning can the real history of a tangible, surgical lesion in its logical sequence be drawn from the patient. Even the doctor who can develop such an amnesia that the true story of the process stands out, that the process is visualized, is rare. It is quite the rule that these patients will construct their case so skilfully that even the doctor sees it clearly—too clearly. But the trained clinician—if he is not too keen to operate—will be able to detect loopholes.

The voluble history volunteered by the patient should excite suspicion in the physician's mind. An accurate clinical knowledge based upon the clinical study of the symptomatology of actual disease processes in the living patient should enable him to detect where the story does not ring true. Painstaking clinical examinations of the patient's body, general and special with the laboratory aids, and a careful correlation of all the findings is imperative. The beginning of these patients' troubles has often been a real physical ailment, for which they have not been guided to normal convalescence by a common-sense physician. They have often been the victims of too sympathetic relatives and doctors. The solicitous relatives or doctors are not always the careful ones—often they breed neuroses. A case of this kind is briefly described below.

CASE REPORT.

Case No. 1.—Miss F., aged 29 years, gave a negative family history for tuberculosis, malignancy, psychoses or neuroses. She had had the ordinary exanthemata with no complications. She had suffered from an unknown eruptive fever at the age of 13 with a good recovery. She had been constipated, but had undergone no serious illness up to an attack of influenza at 22 years of age, during which she developed pain in the region of the base of the left lung and over the abdomen. Following this, she ran a temperature for five months (probably from absorption of a septic pleural effusion). Since this attack of influenza she has had pain in the entire left side of her body, especially upon exertion. There were no limitations of motion or muscular atrophies. For these symptoms she had her first abdominal operation in 1913. The osteopath then treated her for a time. In 1920, she underwent another abdominal operation, shortening of the round ligaments and resection of an ovary, with resulting adhesions. She was next treated by the chiropractors.

In 1922, she was examined at the Mayo Clinic where she was advised to return home. No surgery was advised. In 1923, a surgeon in Dallas operated for adhesions and succeeded rather more than those who had preceded him in building up adhesions due to a severe operative infection. She has taken the baths, been rubbed, had her subluxated joints replaced, and been operated again and again until her mind has become entirely introspective.

Physically, she passes a good examination. Her blood chemistry is normal and her gastro-intestinal

Fig. 2. Stricture with kink of ureter. Patient had been operated for appendicitis.

workout negative. She is well nourished. Absolutely nothing can be found wrong with this woman. She received as much benefit (which was zero) from the osteopaths, the chiros and the baths, as she did from the doctors—and less harm. If surgery is to be successful, it must be based on definite pathology and not symptomatology. Why was this patient ever operated upon?

When pain in the right abdomen is complained of, it must be shown to be intra-abdominal and not retroperitoneal. If the pain is intra-abdominal, it may have to do with the stomach, gall tract, appendix, ovary or tube. The ovary and appendix are the most frequent vicarious victims. We have found that when there is complaint of chronic pain in the right lower abdominal quadrant, the right ureter and kidney must be eliminated. Cases of ureteral stricture,

stones in the urinary tract and pyelitis are very frequently submitted to appendectomies.

The radiogram shown in Figure 1 is of a patient who was submitted to appendectomy and shortening of the round ligaments for a chronic right-sided pain. Note the ureteral stricture, upon the relief of which the pain was relieved for the first time. Can this

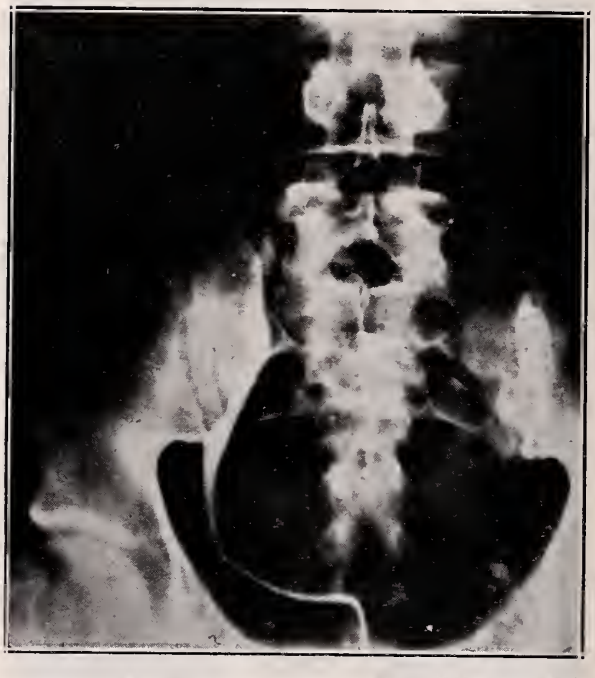

Fig. 3. Ureteral stricture. Case had been operated for pelvic disease without relief.

condition be differentiated by the symptomatology and the physical examination? Not positively, but the urinalysis will furnish hints. A few pus or blood cells in the catheterized urine will be the first suggestive findings, and should lead at once to a renal tract workout. When once the pathology, if such there is, can be positively localized in the abdomen, then differentiation is not so important—at least to the experienced surgeon—for an accurate operative diagnosis can be made, but when the pathology is retroperitoneal, the abdominal operation is worse than useless. In Figure 2, the patient has suffered the loss of her appendix but not of her pain. Note the dilated and kinked ureter. A nephrorrhaphy, with subsequent dilatation of stricture, is necessary here, the first of which has been done. Opening the abdomen could have been of no avail here and should have been avoided. Figures 3 and 4 show similar conditions. Removing the appendix for ureteral conditions is, in our experience, so frequently done that it deserves special mention. The differentiation of these cases will place one on fairly safe surgical grounds, so far as the surgery of the abdomen is concerned.

The chronic appendix is subject to acute flare-ups, which assist in differentiation far more frequently than does the chronic gall-bladder. Acute colics are common with the gall-bladder and help in differentiating here, as do the acute inflammatory attacks of appendicitis. But the two are so frequently associated in chronic inflammations that operation on either, under ordinary conditions, is incomplete without examination of the other.

The diagnosis of ulcer is dependent upon (a) careful history taking, and (b) the *x*-ray examination, especially the fluoroscope. Chemical examination of the stomach contents after a test meal is very uncertain. Hyperacidity is not uncommon in chronic gall-bladder and appendix lesions, and its absence is not uncommon in ulcer. Gastrojejunostomies done upon symptoms alone have been very common and very disastrous.

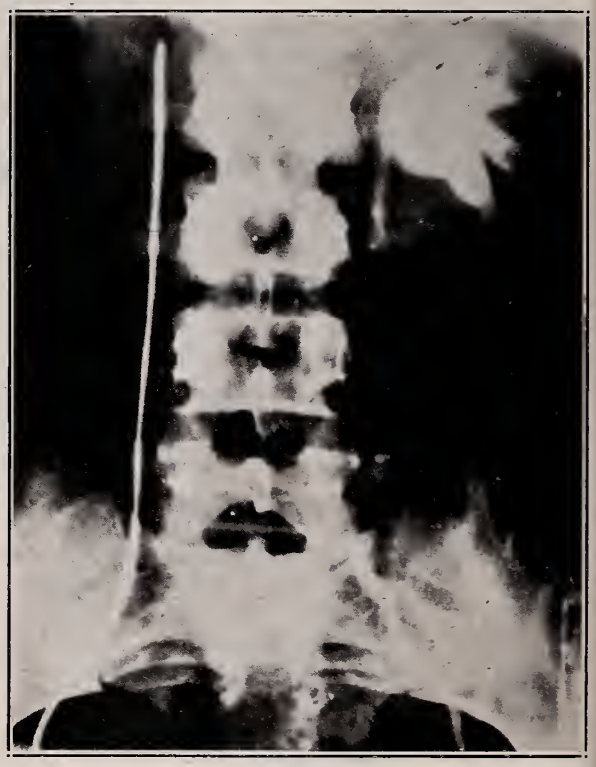

Fig. 4. Ureteral stricture simulating chronic appendicitis.

Any operation which tampers with the physiology of an organ must at least have the justification of a demonstrable lesion. Even then an adequate operation which does not disturb normal physiology should be given the preference whenever possible. The diagnosis of ulcer in its early stages is frequently impossible, even from within the abdomen, without directly laying the sus-

pected area open to ocular inspection. This I have not hesitated to do when symptoms justified.

The differentiation between ulcer, cholecystitis, and chronic appendicitis is not always easy. There is no symptom-syndrome which can be relied upon fully. This is also true of the physical findings. The most prominent symptom, aside from pain, is gaseous digestive disturbances. Quite often this is the sole subjective symptom. Subjective symptoms must always be discriminatingly evaluated. In our experience, fewer clinical mistakes are made in chronic gall-bladder conditions than in those of the appendix. The close anatomical relation of the appendix to the right ureter, especially in the retrocecal type, is most confusing, and in chronic conditions very frequently necessitates a renal work-out. All who have had much surgical experience have seen the left ovary removed when the trouble must have been elsewhere, since the pain for which the operation was done was in no way influenced.

Aseptic surgery has not been an unmixed blessing to humanity. It will be when all surgeons become fully competent, and above all, honest. It is not necessary to remove something or do something because you have opened the abdomen either through a mistaken diagnosis or for exploration. Exploration is yet justifiable because diagnosis is still far from perfect. Above all, the ovaries should be conserved in the young woman. Since the Battey operation has fallen into well deserved disrepute, the most used alibi for oöphorectomy has been the diagnosis of cystic ovaries. Cyst formations of small size are so common in ovaries that they must be normal, or at best immaterial deviations therefrom. Certainly they furnish no justification for the immolation of the ovaries on the altar of so uncertain a diagnosis.

Fortunately, the trend at present is away from oöphorectomy, except where there is justifiable pathology. There are three distinct conditions which often offer this: (1) Cystoma, wherein these cysts differ from so-called "cystic degeneration" is well known. They give rise to the enormous growths not so familiar to the present as to the previous generation of surgeons, yet even now occasionally seen. This classification includes the dermoids. (2) Inflammatory conditions, usually but not always suppurative, and most often secondary to tubal infections. The commonest infection is gonorrhea, but it may be staphylococcic, streptococcic or tuberculous. A recent case of acute tubes proved to be a pure staphylococcic and infection occurred in an 18 year old girl. Primary oöphoritis is extremely rare; I do not recall that I have ever seen a case. Even in these cases, every effort to save ovarian tissue should be conscientiously made. Experience has taught me that to resect an ovary and drop it, or even to drop the whole ovary following a salpingectomy, is to invite its fixation and destruction by adhesions. We now suspend the ovaries to the anterior parietal peritoneum. In pelvic infections many ovaries are necessarily sacrificed. (3) Neoplasms, especially the malignancies. In these cases there can be no question raised. In the differential diagnosis of these diseases nothing need be said concerning ovarian cystomata. Ordinarily their diagnosis is objectively easy. Acute salpingitis, especially of the gonorrheal type and in young unmarried women may offer difficulties. The same array of symptoms and physical findings which are present in acute appendicitis are present. History of exposure is difficult and sometimes dangerous to elicit, but if you believe with me that acute tubes are just as much immediately surgical as an acute appendix, differentiation is of no practical importance. Chronic salpingitis of the gonorrheal variety offers no diagnostic difficulties. In these cases secondary involvement of the appendix is the rule.

Other varieties of chronic salpingitis cannot be differentiated from each other except at the operation, but then confusion with any other abdominal condition is not likely. During the operation the gonorrheal variety may be distinguished by the fact that the gonococcus invades surrounding tissues more slowly, thus giving nature time to cofferdam the region. This gives a line of cleavage from surrounding structures for the seeking fingers. Staphylococci and streptococci fuse the structures together without line of cleavage by their rapid infiltration. This fact alone is fairly reliable as an operative differentiation. Acute conditions have not been more generally considered in this paper because they are usually easy of diagnosis and constitute surgical emergencies demanding immediate operation.

The surgeon who essays the operation of chronic conditions is prepared to do so if he is equipped by experience to readily recognize intra-abdominal pathology and its interdependencies, and is able with reasonable accuracy to differentiate retroperitoneal from intra-peritoneal disease. He must also be able to differentiate from the surgical, the mental and nervous disorders which in and of themselves are never surgical, but which may require certain operative procedures as an aid to recovery. In other words, the neurotic, the neurasthenic and the hysterical patient may exhibit surgical lesions, but with

these more than with any other class of patients the surgeon must be on his guard and demand clearly defined indications for operation. He must be able to grasp and comprehend the limitations of surgery in these cases. By all means, do not let your art become the clearing house for internal medicine. Much of the disrepute into which surgery has fallen with the laity in these days is due to the readiness of surgeons and operators to do an operation without clearly defined indications and limitations in just this class of cases. It is not creditable to surgery, as in the case reported, for surgery to have done no more for the patient than the osteopath and the chiropractor. In fact, the surgeon's sin against that patient was greater.

The plea of this entire paper is for the surgeon to take his art more seriously, to study his cases more earnestly, to withhold his hand from a too ready scalpel, to do his thinking and his study *before* rather than *after* the operation, to save his patient needless operations, and to thereby promote the reputation of his profession. Those who have become greatest in our profession, as well as in all lines of human endeavor, are those who have given the most with the least thought of self.

AN OPERATIVE PROCEDURE FOR THE REPAIR OF HERNIAE COMPLICATING PERMANENT COLOSTOMIES.*

BY

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It is doubtless true that many more permanent colostomies are being done now than ever before. It is practically the only operation that can be expected to give effectual relief in severe cases of low-lying rectal strictures. It is also the conservative thing to do, and is performed routinely in cases of excision or resection of the rectum for malignancy. It is almost impossible to save the sphincter muscles in these cases, and as between a sacral anus and an abdominal one, the latter has much the advantage.

These colostomies practically all herniate sooner or later. This is probably due to the peristalsis of the colon, but it also appears that the mere presence of this weak spot on the abdominal wall determines the weight of the intestines in that direction, and in addition to peristalsis the straining at stool is brought against the incision before healing is thoroughly secure and herniation follows in from a few months to two or more years.

The type of colostomy with reference to its location on the abdominal wall does not seem to make much difference. In my experience, I believe those done through the rectus muscle have herniated earlier than those through the oblique muscles, but I do not know what the experience on this point has been in the large clinics.

The patient who first has a colostomy tied to him is led into a new world, as it were, and then dropped. The strangeness and unnaturalness of having the bowels move through the side, and of straining against this weak and unprotected point, rather bewilders the patient and prevents him from making such efforts to protect himself as he otherwise might. He is like a beginner with a new automobile, who may tear it up before he learns to use it. This then, in addition to suggesting some education and training relative to the function and care of a colostomy, constitutes one of the soundest reasons for operating on these herniae. The patient has then become accustomed to the colostomy and understands its use and care, and then, too, the tissues in the abdominal wall contiguous to the colostomy have become thickened and fibrous and will stand up better after the repair than after the original operation.

The chief difficulties to be overcome in doing the operation are, first, to prevent infection from the colostomy openings, and second, to make adequate closure of the abdominal opening without encroaching too much upon the lumen of the bowel. The technique I have to offer is simple and, I think, fairly effectually overcomes these difficulties. It is as follows:

A number ten soft rubber catheter is slipped well into each colostomy opening and fastened to the bowel wall with towel forceps. The field of operation is prepared in the usual way, being careful not to bring the iodine mop in contact with the colostomy openings. A sterile towel folded several times is next pinned closely along the medial side of the colostomy openings with towel forceps and then turned outward over the colostomy openings and catheters. An incision is made, beginning about two inches below the lower colostomy opening and carried in a semicircular fashion to the inner side staying about two and one-half or three inches away from the colostomy and ending about two inches above the upper colostomy opening. This incision is carried down to the aponeurosis or fascia.

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*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 5, 1925.

This flap, including the skin, fat and hernial sac is carried out over the colostomy openings and the edge of the skin flap is pinned to the skin to the outer side of the colostomy, through the sterile towel, with towel forceps. The hernial sac is dissected away from the flap and opened and its contents restored to the abdominal cavity. The neck of the sac is then freed well, cut off and securely sutured.

The bowel wall can now be recognized by feeling for the catheters, and after estimating the size of the abdominal opening to be left the structures between the colostomy openings can be securely sutured with mattress sutures of number 2 chromic gut, being careful not to penetrate the bowel with the needle. The skin flap is then carried over and sutured in place. The wound is dressed with gauze and tincture of benzoin compound, being careful to seal the dressing to the skin all the way around the edges. The towel which was pinned to the inner side of the colostomy at the beginning of the operation, is then removed and an independent dressing applied to the colostomy. It has been my practice to confine the bowels for about four days following the operation, but this may not be necessary in all cases.

This operation gives the patient an enormous amount of relief and, I believe, increases their general efficiency far beyond what might ordinarily be expected, in that they feel much stronger and get rid of a large amount of apparatus which most of them feel the necessity of wearing.

ABSTRACT OF DISCUSSION.

Dr. K. H. Aynesworth, Waco: I am struck with the remark of the essayist that these patients have a great deal of trouble after operation. I know many patients who have had no trouble for over four years. I am of the opinion that the cause of the trouble is in the primary operation.

Dr. A. O. Singleton, Galveston: I see a good many colostomies, especially in negro women with stricture of the rectum. The development of hernia following colostomies is usually due to infection. If the primary operation is done properly, no hernia should develop. Infection often follows perforation of the colon, which may be due to injury to its terminal arteries. Use supreme care in handling the colon; do not cut or injure the terminal arteries. Experiments on dogs show that cutting of the terminal arteries is followed by necrosis. In this way fewer hernias will develop.

Dr. Barnes (closing): These cases which develop hernia are usually extreme cases of stricture, malignancies, etc. They have been operated under local anesthesia. The colon must be pulled out through a McBurney incision and held in place by a glass rod. Some of these patients had had a colostomy for several years; ninety per cent of them developed the hernia within two years.

THE VALUE OF BLOOD-PRESSURE DETERMINATIONS IN MAJOR SURGERY.*

BY

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Although it has been 97 years since Poiseuille introduced the U-tube mercurial manometer, and although 29 years have elapsed since Riva Rocci made his very important observations on blood-pressure, which led to its widespread use in general medicine, it has only been during the last few years that its value in general surgery has been recognized.

TECHNIC.

Even though it is true that if one has had a large experience in palpating the pulse, he will necessarily make fewer mistakes than would be made by the inexperienced observer; still, it is impossible for any one to estimate blood-pressure in this way as accurately as can be done by the sphygmomanometer.

An ordinary flat stethoscope bell is strapped firmly, but not too tightly, over the brachial artery just above the elbow, and the blood pressure cuff is fastened tightly and smoothly on the upper arm. Before starting the anesthetic, the systolic, diastolic and pulse pressures are determined both by auscultation and palpation, and the relation between the first oscillations of the pointer and the systolic as determined by auscultation is noted. The pulse can be counted with the stethoscope, as the pressure is being released to get the diastolic pressure, and the whole procedure need not occupy over two or three minutes time.

It is important to get the pressure by palpation and notice the first oscillations of the pointer, because the cuff may slip on a very fat arm or the sounds might become faint, and then the pressures can be obtained by palpating the pulse when the arm is placed on a table; or, if this is not done, the pressures can be partially judged by noting the movements of the pointer.

If possible, the arms should be extended by the side, preferably with the wrists fastened to cuffs on the table, for, in a heavy patient, if the hands are placed under the hips, as is frequently done, the accuracy of the readings may be interfered with, and besides, if this position is maintained for from 1½ to 2 hours, it might cause pain in the hands and wrists for several days after the operation. If, because of the nature of the operation, the arms have to be placed upon the chest, the readings obtained in this posi-

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 7, 1925.

tion will be found to be 10 to 20 mm. below those obtained when the arms are extended, so naturally this must be thought of the moment the change is made.

INTERPRETATION OF READINGS.

There are a few well-known general principles that should be emphasized. First, the blood-pressure depends primarily upon the force of the cardiac contractions; in other words, the heart is the pump. Second, because of the elasticity of the great arteries they are able to distend and take care of the additional amount of blood that is sent from the heart with each contraction. Third, the arterioles are so-called shut off valves, since they determine the amount of blood that will pass through a certain group of capillaries, hence, control peripheral resistance. Fourth, the capillaries and veins return blood to the right auricle by means of muscular contractions, gravity, and suction by the heart and lungs.

From a study of these well known principles, one can readily see that the pulse pressure concerns the heart only, since it is the working pressure in moving the blood. Because of this fact, it is the most important single blood-pressure guide to the power of the heart. It has been shown that the urinary secretion is directly dependent upon the pulse pressure, and any pulse pressure below 20 mm. will give cause for alarm as there may not be sufficient pressure to force enough blood through the kidney to permit kidney secretion.

The systolic pressure will be more variable than the diastolic, because the systolic has to follow the variations in the heart rate.

Since these variations in heart rate are constantly occurring from many factors incidental to the operation and the anesthetic, it can readily be seen that the systolic pressure alone is not as valuable a sign of shock as was formerly supposed. The heart must maintain a certain pressure in the aorta, so that sufficient blood can go through the coronary arteries to give proper nourishment to the heart muscle. When the pressures are falling, the heart tries to compensate by increasing the output, this usually means by increasing the heart rate.

I have noticed clinically that with a good heart muscle there is always a tendency for the blood-pressure to rise as soon as the pulse rate increases, and this can be kept up as long as the heart muscle can compensate. This length of time will vary with the depth of the anesthesia—a deep anesthetic shortening the period of compensation—and with whether the shock producing factors incidental to the operation, such as loss of blood, rough handling of tissues, etc., are allowed to continue.

With the elderly patient or the one with a badly compensated circulatory system, the pressures nearly always begin to fall from 10 to 20 minutes before the pulse rate begins to markedly increase, while in the younger person, or the person at any age, whose heart and blood-vessels can compensate for the different depressive factors that are present in all long major operations, the pulse rate begins to increase at about the same time that the pressures start to decline. In either case, if the shock-producing factors are stopped soon after their effect is felt, the pulse rate will begin to decrease and the pressures will start to rise to their original level.

While it is true that solutions given intravenously or in the subcutaneous tissues will help to maintain the pulse rate and blood-pressure at more nearly a normal level than if they were not used, still, the cessation of the harmful influences will act in a much quicker and more permanent way than will anything else.

Herein lies the great importance of frequent blood-pressure determinations throughout the operation, since not only can the approach of shock, loss of blood, etc., be seen from 5 to 20 minutes sooner than by any other method, but the proper remedial measures can be regulated in a more accurate way, and the anesthetist can give the surgeon more precise information than by merely saying that the pulse is weak or of poor volume.

It has likewise been shown that during exhalation the intrapulmonary pressure is increased, thus aiding the heart to force the blood out of the chest, so that the systolic pressure is from 5 to 10 mm. higher during exhalation than during inhalation. It can readily be seen that with a greatly increased respiratory rate this help will not be afforded the heart. Sufficient morphin before the operation does great service in this respect.

If the air way becomes obstructed from any cause, not only will the right heart be working under a greater strain, but the left heart will be deprived of the assistance that is normally given to it by the increased intrapulmonary pressure caused by exhalation. Hence, it is bad practice to allow a patient to go through a long operation with an air way that is partially blocked by a relaxed tongue, masseteric spasm, or inadequate nasal breathing, etc., when an artificial air way by mouth, or rubber catheter in the nose will relieve the condition.

These statements show that the respiration plays such a valuable role in relation to the whole picture that the relations of the pulse,

the systolic, diastolic and pulse pressures, and the respiratory rate and volume, must be studied as a whole, and the relationship that exists at any one time can only be told by a graphic record that will tell at a glance just what the entire picture presents.

INFLUENCE OF POSITION AND OPERATIVE PROCEDURE.

The position of the patient on the table influences the blood-pressure to a marked degree. Miller, in a series of 1,000 cases, found that the blood-pressure was influenced very little by the dorsal position. There was an increase on both the systolic and diastolic pressures in the combined lithotomy and Trendelenburg positions in 50 per cent of cases, and usually an increase in the lithotomy position alone. There was a lowering of systolic and diastolic pressures in 57 per cent of cases when the Trendelenburg was used, and a marked lowering when the Fowler or reverse Trendelenburg was employed. These latter two results plainly show that the Trendelenburg must be used with caution and the position assumed or changed very slowly so as to give the heart and blood vessels a chance to accommodate themselves to the different position.

I have seen a death occur four hours after the operation, when a patient in fairly good condition, was placed in the Fowler position as soon as she was returned to bed. This position, except in very exceptional cases, should never be used unless the patient has nearly regained consciousness.

It was brought out during the War by a commission appointed to study conditions of shock, that change of position after the patient was well under the anesthetic always tended to lower the blood-pressure and therefore, it was advised to do the most extensive work in the first position assumed, rather than doing the most shocking operation after considerable work had been done in a previous position.

I have noticed the same results that were brought out by Miller, and in two cases noted the circulatory depression suggested by the commission. These cases were ones in which the lateral posture for kidney surgery was first assumed, followed by the dorsal position for abdominal work.

PREOPERATIVE PROGNOSIS BASED UPON BLOOD-PRESSURE.

If possible, one must have one or more preoperative blood-pressure readings, as quite often the one obtained just before the anesthetic is started, gives a false picture, as fear and apprehension are capable of raising the systolic pressure 20 to 50 mm., while in some patients, morphin will lower the systolic in just the same proportion. However, even in these extreme cases, the diastolic is affected very little, and by obtaining the pulse pressure before the anesthetic and again 10 to 15 minutes after the anesthetic has been in progress, one can arrive at fairly accurate conclusions as to the real preanesthetic readings.

I much prefer to see a fairly high systolic with a comparatively high diastolic than a moderately low systolic with a small pulse pressure, but prefer the latter condition to one in which the systolic and diastolic are both very high with a comparatively small pulse pressure. Generally speaking, any case with a diastolic of 120 mm. or over, regardless of the systolic, does not present a picture that is favorable to a long deep anesthetic or severe operative trauma, because the heart is already laboring under a heavy strain, in constantly having to overcome this high pressure each time the aortic valves are opened for the additional amount of blood to be thrown into the arterial system.

One of the hardest cases to interpret is the one in which the pulse is very slow and the pressures correspondingly low. I have noticed that these cases withstand shock much better than extremely high pressure cases, provided the pulse pressure is fairly good.

SHOCK.

The mere fact that many theories have been advanced as to the cause of shock, its exact nature, etc., would convince any one that the question has not been definitely settled. However, low blood-pressure is the most distinctive and the most constant evidence of the shocked condition. It is believed that this state of low blood-pressure depends upon a reduction of blood volume in active circulation, and that capillary stagnation probably accounts for the reduction.

Gruber has shown that when the systolic pressure is below 90 mm., the muscles become less capable of work, as contractile organs, and the whole central nervous system shares in an impaired nutrition secondary to the low blood pressure. Because of this lack or reduction of the contractile power of the muscles, I believe that capillary stagnation could easily follow and a vicious circle result.

CONCLUSIONS.

The keeping of routine blood-pressure records in major surgery will convince any one of the following facts:

1. Contrary to the general belief, surgery from the start, tends to lower the blood-pressure, and this depression in the average handicapped patient coming for operation, begins from 5 to 20 minutes prior to any other symptom indicative of the approaching

shocked state. The use of several large abdominal packs, unless they are packed with great care, will cause a temporary drop in the systolic and diastolic pressures; and, if the packs are cold, the degree of drop is greater. Rough handling of the tissues and the intestines always markedly reduces the pressures and increases the pulse rate. Loss of blood, unless the quantity is very small, always lowers the pressures and afterwards increases the pulse rate.

2. All three general anesthetics now in use, ether, nitrous oxid-oxygen, and ethylene-oxygen, cause a rise of blood-pressure, during the first 15 minutes, the greatest rise occurring with nitrous oxid. The next with ethylene, and least with ether. But greater depression is seen with ether than obtains with the other two, and a deep ether anesthetic continued for over one hour in any patient, except the young adult of good cardiac compensation, nearly always causes a distinct drop in both systolic and diastolic pressures and a well recognized increase in the pulse rate.

It is true that ether is a so-called cardiac stimulant, but this is not the case when the amount is used that is necessary to produce complete and absolute relaxation. Ethylene seems to produce more gradual changes in the pulse, respiration, systolic and diastolic pressures than nitrous oxid and is not as depressive as ether.

Spinal anesthesia nearly always produces such an extreme drop in blood-pressure that it is contraindicated in low pressure cases, and novocain, in some patients (particularly those of the nervous type) produces a distinct drop in pressure, and is not devoid of harm when used in large amounts as a local anesthetic.

3. Such extremely valuable information may be obtained by routine charting of the pulse, respiration and the systolic and diastolic pressures, that it is to be hoped that the procedure may be given a fair trial. If this is done, it will be agreed that this step, taken in conjunction with careful inspection of the patient as regards capillary circulation, depth of anesthesia, color, etc., will enable the patient to pass through the anesthetic and operation with the knowledge that everything possible has been done to safeguard this most perilous journey.

ABSTRACT OF DISCUSSION.

Dr. J. W. Nixon, Jr., San Antonio: Dr. Adams gives an anesthetic along scientific lines and at the same time observes very closely the progress of the patient. This removes a mental hazard for the surgeon and gives him more confidence in the anesthetist when he knows the pulse rate, blood-pressure, etc., are being closely checked. I have found that a high blood-pressure in a nervous patient recorded in the operating room before the anesthetic is started may be very misleading. It is not infrequent that fright will elevate the blood-pressure from 30 to 40 mm. above normal, which will fall again after the patient is anesthetized.

Dr. Adams is quite right in his statement that too many abdominal packs are apt to shock the patient, but I think the proper disposition of several abdominal packs gently placed is one of the most important factors in successful abdominal surgery. The continuous shifting and manipulation of the abdominal viscera throughout the operation so often seen under the hand of the casual surgeon, is deplorable. Once the field of operation is found, the viscera should be immediately packed off with warm, moist abdominal packs. A fall of from 10 to 20 mm. in the blood pressure so commonly noted during an exploration of the abdomen or manipulation of the intestines will be seen to rise again when the packs are placed and the abuse of the viscera stopped.

It is pleasing to note that during recent years the anesthetist has been accorded more and more the important position he should occupy in the operating room. I believe that the surgeon will in the future, be even more insistent on the presence of an anesthetist who knows the exact condition of his patient throughout the operation.

Dr. Adams (closing): There is a greater tendency for blood vessels to ooze with ethylene anesthesia than is the case with ether, although surgeons as a rule do not complain in this regard. For blood-pressure observations to be of any value they must be taken often, and the general tendency of the systolic, diastolic and pulse pressures as to increase or decrease noted, rather than a mere transitory increase or decrease.

The patient must be taken as a whole, and the pulse rate, respiratory rate and volume, capillary circulation and color of the skin and mucous membranes, should be carefully noted and studied in connection with the blood-pressure picture.

When the above routine is carried out in all major operations, one can feel that everything possible has been done, and the patient soon learns to appreciate this fact.

FRACTURES ABOUT THE ELBOW JOINT.*

BY

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On account of the peculiar anatomical structure of the elbow joint, the unique movements which normally take place thereabouts, and its relatively great functional importance, fractures taking place in this vicinity are of very considerable importance and their treatment commands our best skill and closest attention to detail. The subject is, therefore, deemed of sufficient importance for presentation at this time.

Fractures of the lower or distal end of the humerus occur more frequently during early childhood and make up a fairly large percentage of the acute bone lesions seen on the orthopedic service of the Presbyterian Clinic for children in Dallas. Fractures of the

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head and neck of the radius occur more often in adults, but we have had occasion to treat such lesions in children.

There are certain important anatomical considerations which must be borne in mind, if one is to treat intelligently fractures in this region. The lower end of the humerus has normally a slight forward inclination or

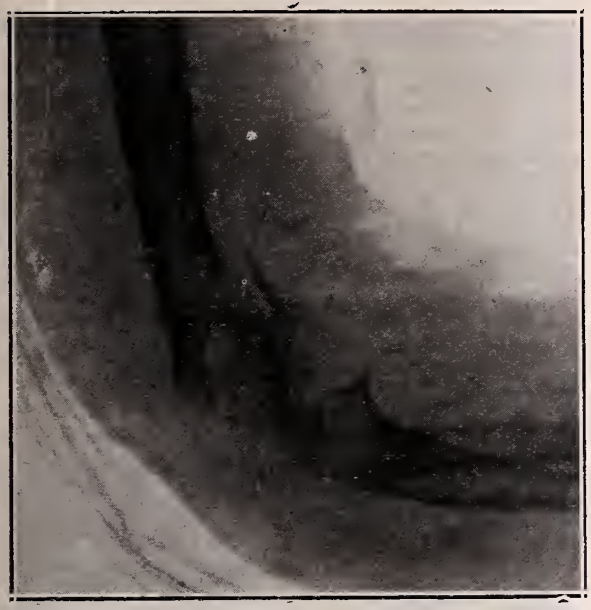

FIG. 1.—G. S., Jr. X-ray illustrating badly comminuted fracture of right humerus just above elbow, caused by a small automobile which ran over this child's elbow on September 30, 1923. Open operation and reduction was performed on October 12. On October 14, patient was seen by a pediatrist who reported a small area of pneumonia. Later on, it was discovered that infection of wound had supervened. This was cleared up and union of bone took place.

angulation. The internal or medial condyle of the humerus is situated at a somewhat lower level than is the outer or lateral condyle and this fact, together with the slightly spiral direction of the trochlear surface of the humerus, accounts for the "carrying angle" of the elbow, which means that when the elbow is in full extension and the forearm in supination with the elbow at the side, the hand is held away from the body. This carrying angle is usually, but not always, present. The relationships of the radial head with the capitellum, the lesser sigmoid cavity of the ulna, and the orbicular ligament, are also points worth noting in this connection.

Fractures about the elbow may take place through any of the bones entering into the joint, or through any of their several bony prominences. Greenstick fracture and epiphyseal separation are fairly common in children. Dislocation may be a complication, particularly in case of fracture of the coronoid process of the ulna. For convenience, fractures of the humerus in this region may be divided into supracondylar and dicondylar fractures, epiphyseal separation, fractures of the internal and external condyles and the internal and external epicondyles, fractures of the "T" or "Y" type and those of the trochlea and capitellum. Fractures of the olecranon and coronid processes of the ulna and of the head and neck of the radius, shall also be considered.

Treatment should be instituted early, and reduction and fixation should be done as soon as possible, unless there is some very definite contraindication. The practice of waiting for some days to allow the swelling to disappear, is to be most emphatically condemned. An anesthetic will generally be required. Fixation is usually done by means of plaster of Paris, and we frequently have recourse to the use of the moulded plaster splint, or gutter, which can be easily removed for inspection. Special splints may be used and are of advantage in some cases, particularly where the fracture is compound. With the exception of fracture of the olecranon, fractures about the elbow are best treated by fixation in the attitude of rather acute flexion, or the Jones position. In fractures of the

FIG. 2.—Same patient as in figure 1, showing nearly complete flexion. When bony union was complete, there was marked limitation of both flexion and extension at the right elbow. The joint *per se* was not involved in this process, which was due to the effects of a periarthritis.

olecranon, an attitude of complete, or nearly complete extension of the elbow is desirable.

Too much stress cannot be laid upon the subject of appropriate after-care in these cases. Light massage and gentle manipulation should be begun as soon as one can safely remove the splint without danger of loss of bony alignment. Passive motions should

always be gentle and care must be taken not to use them to the point of causing pain to any extent. Such measures are invaluable, when properly carried out, in preventing joint stiffness and muscular atrophy during treatment. Ankylosis is to be feared and every effort bent for its prevention.

Open operation should be reserved for those cases where reduction of the fracture cannot otherwise be obtained and for the removal of soft parts caught between the fragments of

FIG. 3.—Same patient showing complete extension at the right elbow. This favorable end-result was due to gentle manipulation done at weekly intervals over a period of several months. This case shows a most excellent result in spite of a bad fracture, pneumonia and infection.

bone. It will be more often necessary in "T" and "Y" fractures of the humerus and in fracture of the olecranon. Removal of the head of the radius may be required in case it cannot be reduced, or where it remains as an impediment to flexion. All non-absorbable materials such as nails, screws, wires and metal bone-plates are to be avoided, if possible, and I believe they are practically always avoidable. Kangaroo tendon is an excellent material in case any internal fixation agent is needed. Some authors, notably Albee, advise open operation in all cases of olecranon fracture, but this is entirely too radical teaching, in my opinion. Non-union should rarely take place and its cause is usually to be sought in improper reduction or fixation or in the interposition of soft parts between the fragments.

Summing up, then, I should say that the preservation of function,—a useful limb and a movable elbow joint—is the object sought after in the treatment of fractures about the elbow joint. One should seek, as nearly as possible, to attain perfect anatomical restoration, but this should be entirely subsidiary to the all-important matter of good function.

ABSTRACT OF DISCUSSION.

Dr. Chas. Clayton, Fort Worth: Arthroplasty is contraindicated in case of canalization of bone across the joint. Regarding the use of splints on the elbow, I think the fewer splints used the better. In the use of the Jones method more depends upon the accurate approximation of the fragments. Early manipulation is not necessary. In certain "T" fractures and in fractures of the external condyle the procedure of choice is excision of the condyle.

Dr. S. D. David, Houston: In fracture we aim to restore distorted anatomy and lost function. Regarding fracture of the lower end of the humerus near the elbow, we have two schools, the Jones school which teaches acute flexion and the Cotton school which advocates partial flexion. I prefer the Jones method, because it lessens the tendency to myositis ossificans.

Dr. Gavin Hamilton of Houston, has shown me an ingenious but simple splint for this fracture. It consists of two wooden pieces corresponding to the shape of the upper extremity with the elbow at a right angle. Backward traction is exerted on the proximal fragment, downward traction on the distal and horizontal traction on the forearm, thus correcting the deformity.

Dr. G. M. Hackler, Dallas: I want to emphasize the position of extreme flexion in these cases. It is very easy to keep this position, and slight motion should be undertaken in ten days, at least. A flannel bandage placed around the flexed arm and the body is sufficient to hold it in position. A fracture of the olecranon may be put up with the arm extended, without fear of ankylosis, provided slight motion is instituted early. I agree with Dr. Clayton in his

FIG. 4.—J. D. A small boy seen at the Presbyterian Clinic of Dallas. The *x*-ray shows the position of full flexion in a case of supracondylar fracture of the humerus, of the greenstick type. Note the posterior plaster-of-Paris gutter splint. This attitude of complete flexion is applicable to the treatment of all fractures about the elbow joint, except those of the olecranon.

point of excision of the condyle in cases that cannot be reduced.

Dr. F. A. Bird, Olympia, Washington: In our industrial board work, nearly all of these cases have received some compensation. Fractures of the olecranon were operated on if there was no union within twenty days, otherwise a refracture was done. I am partial to the fascia lata method. The most serious fractures of the elbow are fractures of the coronoid process of the ulna with backward dislocation. They are open operative cases, some requiring amputation of the head of the radius. All

have had good results and good function. We use physiotherapy, if possible, within twenty days. In "T" fractures, if the fragments can be approximated they are held in place by splints; if they cannot be approximated, an open operation is done.

Dr. Schoolfield (closing): Fracture work requires mechanical knowledge and common sense. I like the flexed position, but without sufficient flexion to cut off circulation. I am not inclined to remove the condyles if they can be repaired by operation.

CONSERVATISM IN OBSTETRICS.*

BY

G. B. FOSCUE, M. D.,
WACO, TEXAS.

Life insurance statistics show that applicants for insurance give child-birth as the cause of death of their mothers and sisters, in one out of every 17; in tuberculosis, only one out of 27, and cancer, one out of 47. It is further shown that grouping all women of child-bearing age together, that tuberculosis alone is as deadly to them as the physiological function of parturition. Little or no change has occurred in the maternal mortality from child-birth in Great Britain in the last thirty years. Are we better obstetricians than the English? While it is true that from data available our maternal mortality rate has improved during the last few years, yet this should produce no sense of elation or pride for the fact remains that of all highly civilized nations, ours stands at about the bottom of the list in this respect.

The greatest obstetrical advance made within the last two decades has been in the line of prenatal and postnatal care. Every woman is entitled to and should be under the watchful care of a competent physician from the time that she thinks she is pregnant until her child has been born, and for a sufficient time postpartum to enable the attendant to detect and probably correct any morbidity in the woman and her child, resulting from this cause. When she does not get this intelligent attention from the physician who has been complimented by being selected to carry her safely through this trying ordeal, she has not received that which she deserves and is justly entitled to.

Under existing conditions only a small per cent of mothers are getting this attention. This deplorable fact is largely due to the failure of the general practitioner to impress upon his clientele the necessity of his seeing the anticipated mother at frequent intervals during her pregnancy. With the end in view of correcting such morbidity that may occur during this period, and to further ascertain whether or not there are mechanical obstacles on her part tending to interfere, he should also acquaint himself with the position of the fetus, its proper size, and any abnormality that the unborn child may be afflicted with.

Belding of Boston, in the study of 5,000 maternity cases, found from their clinical histories that two per cent of the women were syphilitic, while the Wassermann test showed that 10 per cent were infected. This disease may possibly be more prevalent in Boston than in other parts of this country, but undoubtedly the prenatal diagnosis and treatment of lues in the pregnant woman is a conservative procedure of great importance. Fewer dead babies, before and at a term, would be delivered if greater care was exercised in the detection and proper treatment of this condition. If correct antisyphilitic treatment was instituted at this time, it would conserve the health of both the child and its mother.

The best obstetric authorities of today are of the opinion that the precise etiology of puerperal eclampsia is yet to be demonstrated. Those cases that have proper antenatal care, rarely have eclampsia. This is such a well established fact, that the physician in charge of the case is likely to be criticised for having failed to perform his whole duty, if his patient has convulsions at this time. I believe that the Stroganoff treatment, or a modification of the same, and especially that advocated by Beck of Brooklyn, gives the mother and child a better chance. We should hesitate before subjecting the profoundly toxic woman to any operative procedure.

The old adage that "one ounce of prevention is worth a pound of cure," is most strikingly illustrated in prenatal care.

In writing a paper on "Conservatism in Obstetrics," I would like to say more on ante- and postpartum care, for I consider this the *sine qua non* of the obstetrician. But my purpose is to call your attention to, and file a protest against some of the radical obstetric procedures of today.

DeLee and Potter[1] are masters of the obstetric art. At the Chicago Lying-in Hospital, I recently saw Dr. DeLee do his episiotomy and "prophylactic forceps" delivery, and was informed that practically every primipara delivered at that institution had her perineum incised. Seeing him enlarge the entrotitus with scissors and lift out the head, appeared simple, easy, and of great benefit toward shortening this stage of labor. He further claims that an incised perineum properly repaired is better than those perineums that have not been incised and that appear to be intact. For why this should be the case, and for his tecnic, I shall refer

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*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 6, 1925.

you to DeLee's recent writings on the subject. While my experience has been limited, yet I believe that this is a conservative operation of value in selected cases, but, certainly not as a routine measure, as he makes it, which seems to me both irrational and radical.

You are familiar with Dr. Potter's podalic version and his tecnic for doing the operation. With this great obstetrician there are just two ways of delivering a woman; namely, podalic version and cesarian section. He claims that by converting a cephalic into a breech, that the woman is saved much suffering by materially shortening the second stage, thereby conserving the life and welfare of the mother and her child. Version should be done much oftener than is now being done, but not in 80 per cent of all labor cases, as in Dr. Potter's clinic. It should be the operation of choice especially in those cases in which the head, after dilatation, fails to engage, the so-called floating head, or in other fetal conditions calling for rapid delivery. The operation is not a difficult one, with the average physician doing obstetrics it is much safer than high forceps. Dr. Potter, by teaching how to convert a cephalic into a breech and deliver at once, has contributed much to the knowledge of obstetrics. This operation if better understood and appreciated would save many women from cesarian section or high forceps.

The induction of labor after the child has reached a viable age, solely for the convenience of the woman and her accoucheur, should be unqualifiedly condemned. The modern woman is now loudly demanding a painless labor, or, at least, the minimum amount of pain, and with this end in view, to eliminate or abbreviate the second stage, DeLee's and Potter's operations, forceps, pituitrin, and other measures of this character are being used. Cesarian section, alone, can eliminate the labor, altogether I believe it is true conservatism to deliver with forceps when there is undue delay in this stage, as by doing this, the patient is saved much suffering and exhaustion. And furthermore, it materially lessens the risk of cranial or intracranial injuries, from the protracted pressure. A birth injury of consequence, immediate or remote rarely occurs when instruments are used by the obstetrician *who understands how and when to use them.*

Forceps deliveries will not be so often indicated if the patient has had proper antenatal supervision and examinations which would enable the physician to see that his patient was in the best possible condition, and to detect any gross disproportion between the head and the pelvic canal, as well as minor pelvic contractions. He should also be acquainted, beforehand, with the size and position of the fetus. *Forceps are used too often by men who do not know how to apply them, and not often enough by those who do!*

With the same object in view, pituitrin has of late years been much used and is still the remedy of choice with many physicians, to hasten labor. The radical operations above mentioned, which are used to abbreviate the second stage of labor, are less dangerous from the fact that they are usually done by obstetric experts. The average physician feels that he lacks the technical knowledge and facilities for doing these operations, but it requires no skill to inject hypodermatically an ampule of that most unreliable remedy, pituitrin. Occasionally, small doses of pituitrin can be used to advantage when it can be determined that there are no maternal or fetal contraindications. Not feeling that I am expert diagnostician enough to always determine this fact, I never use this most dangerous drug, except occasionally in the third stage.

Beck of Long Island College, advocates an adjustable abdominal bandage which he claims aids in shortening the second stage and takes the place of pituitrin to a large extent.

From statistics just completed, it is found that one delivery out of every 87 that occurred last year in Massachusetts, was by the abdominal route. Five hundred deaths in the United States each year from this operation! In the March 14, 1925, *Journal of the A. M. A.*, DeLee makes this statement: "In the first place, it is a notorious fact too many women are operated upon who should not be exposed to the risk of abdominal delivery." Some obstetricians and many general surgeons are claiming that it should be the operation of choice whenever the labor promises to be difficult. This radical view is not shared by conservative obstetricians.

Patience in obstetrics is next to asepsis, but it must be the active patience of close observation and not the passive patience of ignorance, allowing the mother to become totally exhausted and the child's life to be jeopardized before determining on a proper line of action. In a recent paper read before the American Gynecological Society Dr. Anspach made the following statement:

"At the present day, nature no longer dominates the practice of obstetrician, the modern obstetrician no longer patiently awaits the pleasure of nature, assisting only when it becomes evident that help is necessary. Today, on the slightest provocation and often on decidedly uncertain grounds, he takes matters into his own hands. He is not content to wait the onset of labor, but takes steps to induce it when

he believes the process should occur. After the cervix has become dilated or when it is easily dilated, he turns the child in the uterus and delivers it feet first; or, if the head reaches the pelvic floor, he completes delivery at once by means of episiotomy and the aid of forceps. If the case promises to be difficult, he ignores the natural channel of expulsion and delivers the child through an abdominal incision."

Doubtless, many of the new methods that have arisen in the last few years have wittingly or unwittingly been originated, primarily for the benefit of the harassed obstetricians, and *secondarily for* the good of the patient.

In the treatment of that obstetric tragedy, placenta previa, judgment and technical skill of the highest quality are required. Under certain conditions which are not in the province of this paper to describe, haste in emptying the uterus by an abdominal incision is true conservatism, and should be done without delay if the child is alive and of a viable age. And when there is little or no dilation, the consensus of opinion is that packing the cervix and lower segment of the uterus and the vagina with iodoform gauze, waiting until dilatation has occurred, and then delivering by the vaginal route with the aid of version or forceps if found necessary, gives both the woman and the child the best chance. The Keilland forceps should be the instruments of choice for this purpose.

To alleviate the suffering of the woman giving birth to her child, should be the imperative duty of the obstetrician. This should be done by inhalation, the hypodermic needle, or drugs by the mouth or rectum. Ether and chloroform were used largely for this. Chloroform, on account of the supposed immunity that the parturient woman possessed, was the anesthetic of choice with the vast majority of practitioners. It was given freely regardless of the stage of labor or condition of the patient; the writer has administered as much as a pound in prolonged and difficult cases. Its conservative use will, in my opinion, be continued, especially when labor occurs out of a hospital; I do not concur with the statements recently made by some that chloroform has no place in obstetrics.

Twilight sleep as originally practiced by Frieburg has justly fallen into disuse, Gwathmey's synthetic analgesia promises much. I have been using magnesium sulphate and morphin intramuscular injections as first described by Adams of Ann Arbor, with much satisfaction.

Undue haste in delivering the placenta should be avoided. There is no cause for hurry, unless serious bleeding is present. The safe and conservative treatment is to wait until separation has occurred, even if it is delayed for 24 hours. It is much safer to wait than to go into the womb and remove it, or to use too much pressure over the uterus. Pituitrin may be of assistance in causing uterine contractions, especially if there is hemorrhage. Perineal lacerations should be immediately repaired, thus conserving the future health of the woman. I usually make these repairs while waiting for the placenta to be expelled.

I desire to stress the conservative management of the puerperal woman, and to protest against the heroic remedies that are used in the treatment of blood stream infections. My experience with serums has been entirely unsatisfactory; with mercurochrome I have had no experience. Statistics show that deaths from childbed fever are fewer with midwives than with the general practitioners. This rather proves that palliative treatment, or no treatment at all, gives the woman a better chance for her life, than the overtreatment that many have been giving her.

ABSTRACT OF DISCUSSION.

Dr. G. H. Spurlock, Houston: In the first place, conservative obstetrics has passed through a transitional period and is not the regular order of today. You have heard the man who fears to make a vaginal examination and we are to hear the man who recommends version. There is a great latitude between the two. I understand conservatism to mean using good judgment and avoiding the things that are questionable. There are two things you should remember and they are the mother and the babe. Regardless of the procedure used, these two factors must be uppermost in our minds. All who do an obstetric practice must have an obstetric conscience which will guard the welfare of both babe and mother. Most women are now clamoring for relief of the pains, a condition we must meet. The doctor in a case of obstetrics must keep a level head, for emergencies of a serious nature will arise, and he must decide what is best to be done. Pituitrin has spent its time and has reached its level; no man who knows obstetrics is now using pituitrin.

I have the highest regard for the man who can relieve the suffering of the woman and at the same time do good work. I repeat that the suffering of the woman and the welfare of the baby is and should be uppermost in our minds. Dr. Cutter's paper could be discussed along with this one, because *better* obstetrics is *conservative* obstetrics. In all your cases you should get a careful history. You will frequently find that the patient has had tuberculosis or some other disease that will have an influence on the puerperium. The constitution of the patient bears a great relation to the confinement. I saw a patient only a few days ago that gave a history of typhoid at the age of 6 years, but from what we could get from the history the patient probably did not have typhoid fever but pyelitis. Pyelitis could have a bearing on the confinement and could easily occur again. I want to congratulate Dr. Foscue on having the temerity to read a paper on conservative obstetrics.

Dr. Lucien LeDoux, New Orleans: Dr. Foscue's paper deals with the subject rather severely if one takes its application as referring to the practice of the ideal, and, of course, no one would object to the best. Most things are easy to do in private practice when you have the facilities and properly trained

help. It has been suggested here that many of the obstetrical problems can be met in the home, without apparatus or trained help Eclampsia, in my belief, is best treated conservatively, and this treatment is justified from the results which I have obtained in my last 28 cases.

In discussing the treatment of placenta previa a line should be drawn between the marginal and the central types. The introduction of bags, and when fully dilated, the use of version, appears to me to be the best plan of treatment in the marginal types. In handling the central types, I believe that the abdominal cesarean section is the method of choice. Transfusion before operation, or at least infusion, is of great value. Hemorrhage from the lower uterine segment is unquestionably a true emergency. I have always taken the view-point that the maternal life is more valuable than the new-born life. There is so much to be said that it is not possible to cover the subject in the short time allowed. I will only add and asseverate that conservative obstetrics is the best type of obstetrical practice. I have found that the obstetrician is unusually conservative, anyway. It is usually the general surgeon who is most radical. Today, the men in the small communities are as capable of doing good work as the men in the large cities.

Dr. G. B. Foscue (closing): I possibly did not make myself clear in stating that it was true conservatism to perform a cesarean section when there was no dilatation and the child was viable. A cesarean section will then save the child, but unless such an indication is present, palliative measures may be instituted.

THE USE OF GLUCOSE AND INSULIN IN THE TREATMENT OF OBSTETRIC AND POSTOPERATIVE ACIDOSIS.*

BY

Q. B. LEE, M. D., F. A. C. S.,
WICHITA FALLS, TEXAS.

For several years we have been using glucose, both intravenously and per rectum, in the postoperative treatment of acute abdominal conditions and in other cases where starvation and acidosis have become factors. Our attention was first called to the combined use of glucose and insulin by an article of Thalheimer's appearing in the *Journal of the A. M. A.* Since that time we have been using this method with very gratifying results, and in our opinion it is a decided improvement over the older method.

What insulin is and how it acts has never been definitely determined. The fact has been established clinically that it plays an active part in the metabolism of carbohydrates, causing a rapid conversion of the blood-sugar, even to a dangerously low point, if given in sufficient dosage. The use of insulin in the treatment of diabetic acidosis has been well established, and the present indications point to an increased field of usefulness of this activating substance, in the prevention and treatment of the starvation type of acidosis.

Macleod, in his text-book on physiology, makes the following statement in regard to the causation of acidosis: "For the combustion of fat a certain amount of carbohydrates must be burned. Fat evidently is less readily oxidized and needs a fire of brighter degree to consume it. If the carbohydrate fires do not burn briskly enough, the fat is incompletely consumed; it smokes, as it were, and the smoke is represented in metabolism by the ketones and derived acids. The choking down of the carbohydrate furnace may be due to a curtailment of the intake of carbohydrates, as in starvation, or to a fault in the metabolism furnace, as in diabetes." If this ordinarily accepted theory is correct, then the use of glucose and insulin in the prevention and treatment of starvation acidosis is a rational method of treatment, and is not to be classed as vague endocrine therapy.

In our work we have used Merck's C. P. Anhydrous Dextrose, which is put up in five or ten per cent solution, in large bottles, and then sterilized in the autoclave for fifteen minutes at twenty pounds pressure. The solution should be clear and white; if there is any discoloration it should be discarded.

From 700 to 1,000 c.c. of the solution are given intravenously, taking at least one hour to give this amount. This can be given twice daily, and either a five or ten per cent solution may be given, depending upon the amount of glucose needed. For every two or three grams of glucose administered, one unit of insulin is given. In most of our cases we have given 1,000 c.c. of the five per cent solution, giving ten units of insulin subcutaneously when the fluid begins to flow into the vein, and the remaining ten units when the infusion is finished. The solution should be given warm. (In giving infusions of any kind, an infusion thermometer should be placed in the tube near the needle, in order to know the temperature of the fluid as it enters the vein.) If the solution is given slowly, there will be no rise in blood pressure nor any danger of overtaxing the heart. Since we have been careful in regulating the temperature so that it enters the vein at from 100 to 110° F., we have had no chills or severe reactions, and there is seldom a rise in temperature of more than one degree. We have used this method of treatment in four different types of cases, each having acidosis as a factor, but each differing from the other somewhat, clinically.

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*Read before the North Texas Medical Association, at Denison, June 17, 1925.

PERNICIOUS VOMITING IN PREGNANCY.

The cause of hyperemesis in pregnancy is not known, but an acidosis soon develops, which complicates the condition. A vicious cycle is thus set up, the vomiting and acidosis aggravating each other. In many of these cases there is probably a faulty metabolism which is not understood, and it may be possible that there are certain end products of metabolism in the blood that cause the nausea and vomiting before there is any indication of trouble from urinalysis.

We have recently treated a patient of this kind with very striking success, on whom we performed a therapeutic abortion two years previously, on account of the vomiting. At the previous pregnancy we were not able to clear up the acidosis, although the patient was under the care of a specialist from the beginning of her pregnancy, and had every attention. Glucose was administered intravenously and every method known was used to avoid the induction of an abortion. Following the abortion, she vomited three days, and it looked as though we had waited too long before interfering. Her condition was just as bad during the recent pregnancy, and she came to the hospital with the idea of having an abortion, very much to her displeasure. One thousand c.c. of 5 per cent glucose and 20 units of insulin were given at 5 p. m., and the following morning she ate a hearty breakfast. As soon as the insulin was left off, or she was taken off a heavy carbohydrate diet, the vomiting would start again. By keeping up the insulin intermittently and regulating the diet, she was carried through the third month. Since that time she has had no special trouble, although she has been kept on a high carbohydrate diet.

This was the first case in which we had employed this treatment, and the results were so striking that our enthusiasm for its use in other types of acidosis was aroused.

POSTOPERATIVE ACIDOSIS.

All of you have had the experience of having patients who have been operated upon for some simple condition, develop excessive vomiting on the second or third day, without any apparent cause. Recently, I have seen two such cases, one in my own practice and one in consultation with another surgeon. Both gave strongly positive tests for acetone in the urine, which test had been neglected until the vomiting started. Such patients are markedly nauseated, have a peculiar odor to their breath, and the sight of food is disgusting. The anesthetic probably so affects the metabolism as to bring about this condition. These cases are ideal for this type of treatment and will clear up very rapidly. However, the vomiting will not stop entirely until the acetone disappears from the urine, and as soon as this disappears the patient is anxious to take food. We are now very careful to see that all postoperative cases have daily urinalyses and that the examination for acetone is made routinely.

ACUTE ABDOMINAL INFECTIONS.

Acute abdominal infections, in my opinion, offer the greatest field of usefulness for this treatment. Whether the addition of insulin to the glucose has a decided effect, I cannot say, because of the relatively small number of cases treated. We have used glucose intravenously for several years in our postoperative treatment, but we do not believe that we had such good results as since we have been using the combined method. However, due to our increasing enthusiasm, we have been giving much larger quantities of the solution and at more frequent intervals, which may partially account for the better results.

It is not my intention to go into the treatment of peritonitis, as this seems to be fairly well established. I wish, however, to stress the mechanical factors used in putting the intestines at absolute rest and supplying fluid and nourishment to maintain the patient. The vomiting is chiefly due to the ileus, so that if the patient is given liquids by the mouth, these are not absorbed but have a tendency to stimulate a reverse peristalsis and cause a regurgitant type of vomiting. The vomiting is made worse by the acidosis due to starvation, and these react upon each other, setting up a vicious cycle. We have been surprised since using this method of treatment at the practical absence of nausea and vomiting. By keeping the stomach absolutely empty there is very little fluid for regurgitation. Through this intravenous administration the fluids of the body can be maintained, the maximum amount of nourishment can be given, and acidosis will not occur.

This will not be the means of curing all abdominal infections, but it largely fulfills the mechanical requirements necessary for keeping the intestines "splinted" and the patient supported, so that those who have an immunity will recover.

PREOPERATIVE PREPARATION OF PATIENTS WITH CHRONIC OBSTRUCTION.

These patients are suffering from a chronic dehydration and acidosis and present a very perplexing problem for the surgeon. They cannot be safely operated in their condition, and as they cannot take nourishment through the stomach, it is difficult to restore the fluid

balance. This treatment will more nearly fulfill the requirements than any other that I know of. The fluid can be given in as large quantities as desired, without question of absorption, and sufficient glucose may be given to relieve the starvation, temporarily.

I have just recently operated upon a patient with a chronic obstruction from an ulcer at the pylorus. She was in a critical condition and it seemed questionable whether we could do anything for her. After administering three treatments, the acidosis cleared up and we were able to give some liquid nourishment by the mouth, and within a week's time the patient was a fair risk and was operated upon without difficulty. This patient had been treated by stomach lavage, alkalinization and atropin, without any results.

It is not to be understood that we rely exclusively upon the intravenous method of administering fluids to the patient, but it is, in our opinion, the most satisfactory and reliable route in desperate cases, when large quantities of fluids are to be given.

We often give normal saline by hypodermoclysis, and 2 per cent glucose may also be given by this route. All patients are given a proctoclysis of 10 per cent glucose and soda, along with the intravenous administration, unless there is some contraindication.

SUMMARY.

1. Acidosis is a frequent postoperative and obstetric complication.

2. The intravenous administration of a solution of glucose combined with insulin is the most satisfactory method of combating it.

3. The treatment is simple and safe, if a clear solution is administered slowly at blood heat.

The Quantitative Accuracy of Medical Tablets.—Attention has been called repeatedly to discrepancy between the actual composition and the claims made for various tablets and pills sold to the medical profession. Variations as high as 54 per cent above and 70 per cent below the label statement of composition has been found. Two associations of pharmaceutical manufacturers have appointed a joint committee which collaborates with the government authorities in an attempt to bring about improved conditions. During the past years, attention has been given by this group to the composition of hypodermic tablets. As a result of this study, plans for controlling the degree of accuracy of hypodermic tablets have been issued by the Federal Bureau of Chemistry in which is given a maximal permissible variation, ranging from 7.5 to 9 per cent. The fact that the pharmaceutical industry collaborates with the governmental authorities in the establishment of standards is encouraging.—*Jour. A. M. A*, July 11, 1925.

MECHANICAL SUPPORT OF THE UTERUS; ITS INDICATIONS AND TECHNIC.*

BY

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There seems to be a lack of interest in pessaries since surgical correction of malpositions has become safe, and practically all of the literature on malpositions of the two last decades is either an advocation or criticism of some operative method. Novak[1] has recently said, "The young gynecologist of today frequently has no conception of what the pessary is meant to do, and he is apt to even be irritated at the suggestion that such an implement should be accorded, at least a modest position, in his armamentarium." I have concluded that it is because the overcrowded curriculum of our medical schools and the enthusiasm of our teachers for surgery have kept the usefulness of the pessary and the art of fitting them from being taught to undergraduates; and a lack of interest, because of a lack of acquaintance, has kept them from getting such knowledge by postgraduate study.

I first became interested in mechanical support of the uterus in 1917, when a patient forty years of age came for relief of a very severe backache and soreness in the pelvis. She had just returned from the Mayo Clinic where she was told that her trouble was all caused by a badly fallen womb which was curable by operation, but that she could not have an operation there because of a heart lesion. She had a valvular incompetency with a marked hypertrophy, and was said to have had two breaks of compensation. She had been advised to wear a McIntosh belt and stem pessary, which she did for a time with some relief from pain, but the pessary caused a very foul odor and some bleeding.

The cervix was at the vaginal outlet. It was badly eroded and edematous and there was a marked discharge. The uterus was four times its normal size and quite soft and tender to pressure. She was determined to get relief and insisted upon an operation, regardless of the consequences, if there was no other relief.

I had never seen a pessary fitted in the clinics or hospitals where I had worked, and, to me, there was a mystery about its action. I knew their use had once been popular, and I asked two confreres, who were doing gynecological surgery principally, about pessaries,

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

1. Novak, Emil: "The Vaginal Pessary—Its Indications and Limitations," Jour. A. M. A., Vol. lxxx, No. 18, p. 1294, May 5, 1923.

and found that their knowledge was as meager as mine and neither of them wanted the patient.

I read the text of the subject in Crossen's "Diagnosis and Treatment of the Diseases of Women," then I visited an instrument house in Chicago and looked over their stock of pessaries and selected thirty various sizes and sorts and asked the privilege of keeping those used and returning the others. The clerk replied that I might have the whole lot for one dollar, as they were dead stock to them. I wondered why this was true.

I relieved my patient and was surprised at the rapid change in that uterus. Within eight weeks it was of practically normal size, the cervix normal in appearance, and there was no excessive leucorrhea and no tenderness. At the end of six months she gave up the pessary, on my advice, and she remained normal from a gynecological standpoint until her death, two years later.

Since that I have used pessaries of the various sorts in ninety cases successfully, most of which would have submitted to surgical correction, I believe, in other hands. For that reason I have chosen this subject for a paper and include these elementary remarks on the subject.

Pessaries are appliances for introduction into the vagina for holding the uterus in position or supporting the vaginal walls. Various substances have been used. In my opinion, hard rubber so nearly meets all requirements that it should be used to the exclusion of all other materials. Their principal indications are in retroversion, or retroversio-flexions, prolapse of the uterus and in prolapse of the anterior or posterior vaginal walls. In retrodisplacements, as well as in prolapse, the pessary is used to hold the uterus in its normal position, after it has been placed there by bimanual or instrumental manipulation, by holding the cervix upward and backward toward the hollow of the sacrum. The pessary accomplishes this by taking its main support from the pubic arch and the soft parts, the principal of these being the anterior vaginal wall and the sphincter vaginae muscles. The lower extremity and cross bar of the pessary is held forward against the soft parts of the pubic arch by the backward curves of the two long arms resting against the levator ani muscles and other structures of the pelvic floor, which act as a fulcrum, and the upper cross bar is by these forces pushed upward and backward, which causes it to support the posterior vaginal wall in an upward and backward direction, and the wall being attached to the cervix, carries the cervix upward and backward with it.

There are three designs of pessaries which, in my experience, when moulded, meet all requirements for these conditions, the Hodge, the Albert Smith and the Thomas—the latter I seldom have need for.

Whatever pessary is used, it must be selected as to size and then moulded to meet the individual requirements of the case. Emmet[2] has said, "After Hodge's conception of the closed lever pessary, I consider the most important advance was by Sims in his recognition of fitting each pessary to the vagina."

The necessity of having various sizes and properly moulding them for the case at hand is largely responsible for the use of pessaries having been abandoned by many men who have used them with a measure of success at some time. I have been in many of the older doctors' offices and have seen one or two pessaries in their instrument cases. I have inquired and have been told that they had the things but had never tried to use them, or that they had tried the same pessary on a few cases and seemed to get little good from it. Emmet also said, "The practitioner, to become an expert in fitting a pessary, must have a decided mechanical talent, and that full benefit may be derived from the use of the instrument, he must be able to appreciate slight shades of difference which would be entirely overlooked by others. * * * Scarcely two women can be found who will be benefited by wearing exactly the same size and shape instrument."

I believe, also, that attempts to use a pessary in cases where it is contraindicated have been the cause of some condemning their use in general. There are four contraindications to their use which must be considered. (1) In the majority of cases of retrodisplacement the primary cause, or a resultant condition, is inflammation with tenderness which may render mechanical support intolerable. Such a condition should be treated by replacement and support by tampons of boroglyceride, which are removed after 48 hours and followed by hot douches, this treatment being repeated until the uterus is reduced in size and the tenderness lessened, which may require from a few days to six weeks, after which a pessary can be worn to advantage with comfort. (2) Adhesions from a pelvic peritonitis which prohibit correction and therefore contraindicate anything but a laparotomy and surgical replacement and support. (3) Tumor, which by its excessive weight may carry the uterus backward and downward with a force greater than any pessary can counteract. (4)

2. Emmett, Thos. A.: The Principles and Practice of Gynecology, 1884.

General visceroptosis with the pelvic floor, including the fascial and ligamentous supports of the pelvic organs, so relaxed that no pessary can hold the organs in place. The pessary must therefore be restricted to those cases in which the uterus is replaceable and in which the pessary is capable of holding it in place without discomfort.

Dudley[3] says, "Failure to recognize and appreciate the contraindications accounts not only for the failures and disappointments, but also for the many evil results which have followed indiscriminate attempts to treat all displacements by mechanical supports. The pessary, according to the knowledge, judgment and mechanical skill of the practitioner, will be useful, useless, or injurious."

Postpartum retrodisplacements are the most striking indications for a pessary. The subinvoluted uterus with its heavy weight and its relaxed and subinvoluted suspensory ligaments certainly should be supported mechanically until it has returned to its normal weight and the normal supports have regained their tone. The routine postpartum examination is very instructive to the obstetrician and gynecologist in many ways, but in none more than the light it throws on the incidence of postpartum displacements. Lynch[4] has shown by statistics from 1,230 cases that posterior displacements occur in 41.1 per cent of cases the first year after confinement. Every woman should be examined at from four to six weeks after delivery, and if a retrodisplacement has occurred it should be corrected and a pessary fitted and inserted, for by the retroversion the broad ligaments are more or less twisted and the return circulation is impeded. This causes chronic congestion of the uterus, engorgement, cellular infiltration, simple endometritis and hypertrophy. If there is a subinvolution only, it should be properly treated, which, to me, means a pessary for its support, as well as other measures. At this time it may be necessary to wear the pessary a few weeks or perhaps six months. This early attention will relieve many suffering women and save many of them from the necessity of a surgical operation at a later date.

Pessaries have served me well as a test for relief of symptoms before resorting to suspensions. Most of you have doubtless done surgical suspensions and found that the patient complained of the same symptoms, even though you felt that your operation, from a mechanical standpoint, was good. I have not had these disappointments since I have used the pessary as a test.

While a patient is wearing a pessary, douches of mild, cleansing antiseptics should be taken once or twice daily. My preference is borax, drams 1 to the pint of warm water, and if the uterus is very large or there are adhesions, the knee chest position for thirty minutes once or twice daily, is a help, as is also the "elephant walk exercise," or floor scrubbing on the hands and knees.

I can see no ground for the fear that I have often heard expressed, that a pessary may cause cancer of the cervix. A properly fitting pessary is not in contact with the cervix, but encircles it and rests against the vaginal wall from a half to three-quarters of an inch from it. If there is an ulceration of the cervix, I never insert a pessary until the cervix is completely healed. I take this precaution against criticism, as some ulcers are malignancies in the beginning, and if a case left my hands with a pessary and some one else diagnosed a malignancy, the pessary would be condemned as causing the malignancy.

CONCLUSIONS.

1. General practitioners as well as gynecologists should be acquainted with the indications for and proper use of pessaries.
2. A properly fitted pessary will relieve the majority of cases of retroversion, with or without prolapse, and with symptoms of disturbed function.
3. Those cases which are relieved by pessary only temporarily, will be permanently relieved by suspension operations.

3. Dudley, E. C.: The Principles and Practice of Gynecology, 1908.

4. Lynch, F. W.: "Retroversion of the Uterus Following Delivery," Amer. Med. Jour. Obst. and Gyn., Vol. iv, p. 362, October, 1922.

NOTED CHEMISTS TO AID HOOVER.

The appointment of an advisory committee composed of outstanding members of the chemical industry to coöperate with the Department of Commerce has been announced by Secretary Hoover. The purpose of this committee is to assist the chemical division of the department in mapping out a program of work which will be of the most practical and immediate benefit to the industry.

The membership of the committee, as announced by Secretary Hoover, includes Dr. Leo Bakeland, president, American Chemical Society and inventor of bakelite; Dr. A. S. Burdick, president of the Abbott Laboratories of Chicago, and formerly president of the American Drug Manufacturers' Association; Dr. H. E. Howe, editor of the Journal of Industrial and Engineering Chemistry; Dr. Charles H. Herty, president of the Synthetic Organic Chemical Manufacturers' Association; Henry Howard, chairman of the board of governors of the Manufacturing Chemists' Association; G. Ober, president of G. Ober and Sons, Baltimore, and past president of the National Fertilizer Association; E. G. Trigg, president of John Lucas and Company, Philadelphia, and president of the Agricultural Insecticide and Fungicide Association; A. Cressy Morrison, president of the Acetylene Gas Manufacturers' Association, and S. W. Wilder, secretary of the manufacturing Chemists' Association.

PRIMARY PIGMENTED TUMORS OF THE LUNG.*

BY

WILLIS W. WAITE, M. D.,
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The object of this paper was to report four cases of apparently primary pigmented tumors of the lung, but since the appearance of a recent paper by Dr. David T. Smith,[1] giving the origin and location of tissue that may produce melanotic tumors, there may be some question about calling them primary. Primary tumors of the lung are relatively rare and are very infrequently diagnosed antemortem. Since the more general use of the *x*-ray in chest examinations, the correct diagnosis of primary lung tumors should be more exact in the future than it has been in the past. While these tumors are rare and the average clinician is not likely to see more than one or two in a life time—and probably none at all unless he gets post mortems on his patients that die—they are not so different from secondary tumors in *x*-ray examination that they should not be recognized by the röentgenologist doing chest work.

Of all the cases that I have seen post mortem, not one was recognized before death. The cases that have been diagnosed as primary tumor of the lung, before death, always failed to show it at post mortem. The text books tell very explicitly how to make a diagnosis in these cases but, unfortunately, either the possible cases are not carefully enough examined, or else the symptoms and signs are so indefinite that no exact diagnosis can be made. If all chests giving symptoms were *x*-rayed, more correct diagnoses would be made.

Tumors of the lung probably simulate tuberculosis more closely than any other condition and are frequently treated for it, without much success. If clinicians would get the habit of making a thorough and careful examination of every chest they were called upon to go over, they would be doing the utmost possible to find lung tumors.

Pigmented tumors have always furnished an interesting field for study and their exact classification has not always been agreed upon by pathologists. Some have insisted that all are sarcomas and originate from certain special pigment-bearing tissues in the body. Others claimed that many of them, at least, were of epithelial origin and should be classed as carcinomas, and others have been undecided. Recently, it has been shown by Smith that both epithelial and connective tissue is capable of producing pigment. So it seems that both groups of pathologists may have been correct in their classifications.

All the pigmented tumors are extremely malignant, usually metastasize rapidly, and produce death in a relatively short time. Perhaps this is the reason why they attract more attention than some of the commoner tumors. Probably another reason is the mysterious chemistry that surrounds their pigment production.

So far as could be ascertained, the literature contains one case[2] reported as a primary pigmented tumor of the lung. This was diagnosed as a melanotic sarcoma. The symptoms suggested tuberculosis and the patient was treated for that, though no tubercle bacilli were found in the sputum. The true condition was found at post mortem.

In a series of 210 post mortems we have found four cases of primary pigmented tumors of the lung; at least, no other focus was found that could be classed as primary. However, the eyes were not removed and examined and a very small focus could have been overlooked on the skin. The tumors fall into two groups. In one group there were a few small black nodules in the pleura of one lung, while in the other group there were large tumor masses in both lungs. There were two cases in each group.

One of these, and of the first group, was a white man who died of hemothorax. He had always been well until two days before death. The other was a strong, apparently healthy Mexican laborer who was taken suddenly ill with spontaneous pneumothorax and died in a few hours. It was impossible to tell whether the lung had ruptured at the site of the tumor in either case but the tumors were always on the afflicted side.

In the right lung of the first case, just beneath the pleura and mostly in the lower lobe, there were about a dozen small, dark, slightly elevated nodules. The largest of these was about 5 mm. in diameter. The lung was collapsed and slightly adherent at the inner margin of the lower lobe. The left lung was slightly adherent posteriorly with a fibrous adhesion. Both lungs showed a peculiar vesicular condition at the apices, the right more than the left. In the right, the largest vesicle was at the apex and about 100 mm. in diameter. It had a rather thick fibrous wall and looked somewhat like a cavity. Slightly further down, there were several other smaller vesicles. The heart and great vessels were in good condition and it

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 6, 1925.

1. Smith, David T.: "Evidence Showing the Existence of Two Distinct Types of Pigment Cells Capable of Giving Rise to Melanotic Tumors," Bull. Johns Hopkins Hosp., Vol. xxxvi, p. 185.

2. Kunkel and Torrey: "Report of a Case of Primary Melanotic Sarcoma of Lung, Presenting Difficulties in Differentiating from Tuberculosis," N. Y. State Jour. of Med., Vol. xvi, p. 198, April, 1916.

was impossible to tell where the lung had ruptured. The condition, at the apex, could have easily accounted for the condition, but would not a recent, rapidly growing malignant tumor involving the lung more likely be the cause? Microscopically, this tumor looked like a typical melanotic sarcoma and contained many vessels.

The second case examined was in a Mexican and it was possible to take only a portion of the lung but gross examination showed no place where the lung was ruptured. There were also several small pigmented tumors in this case. They were not as large as in the first case. There was no tuberculosis and no heart lesions were found. The left lung was clear. Microscopical examination of sections through one of the tumors showed a condition almost identical with that of the first case.

In both of these cases, it would have been possible for these tumors to have been secondary to a small primary focus. In the first case, the examination was private and done about midnight. The small discolorations were not suspected at that time of being anything but small sub-pleural hemorrhages so of course no special search was made for moles. So far as his family knew, however, he did not have any moles. In the second case, as well as could be determined, no moles were present, but it would have been easy to overlook them on such a dark-skinned Mexican. The most important thing to remember in these two cases is the thought: May not such small new growths more frequently be the cause of spontaneous pneumothorax?

The two cases in the second group are almost identical as far as the distribution and appearance of gross and microscopical lesions go, so only one will be reported in detail. They were both middle aged Mexicans. The first one died without a physician seeing him so we do not know anything about him. The second case was seen by the city physician the day before death. He was able to obtain the following history and make a partial examination:

HISTORY.

"I was called to see this patient and found him in the middle of the floor crouched on his elbows and knees with his face on the floor and showing extremely labored respiration.

"There was nothing of importance in his past history. He had had measles and scarlet fever during childhood and whooping cough at 25 years of age. He had also had malaria. For years he had been subject to colds in his head. He had suffered from a so-called dyspepsia for three or four years. He smoked cigarettes incessantly but did not use alcoholic drinks. Up to two years previously his health has been good. His wife had died of pulmonary tuberculosis twelve years ago, but otherwise his family history was negative for tuberculosis. He had lost 10 or 15 pounds in the last two years. He was a fairly well nourished individual about 5 feet 9 inches in height and weighed about 135 pounds. His appetite was good and his bowels regular. There were no "night sweats," and the nose, pharynx and larynx were normal. The heart was enlarged as well as I could outline it, and the abdomen was normal. The pulse was 120 and temperature 99.4° F. There was no clubbing of the finger nails. The patient coughed, but there was very little expectoration. This expectoration was offensive and had a rather sweetish odor and looked like muco-purulent matter. His breathing seemed to be abdominal, and it was with the greatest effort that he was able to respire. The respiration was shallow and hurried; dyspnea was very marked. I thought I could get Skoda's rales in the upper part of both lungs. Crepitant rales were heard in the lower right lung."

POST-MORTEM REPORT.

The body was that of a Mexican man about 40 years old. He had no external marks of violence. There was some edema of the lower extremities. On section, there was a moderate amount of subcutaneous fat. The muscles were fairly well developed. On opening the abdomen, there was no excess of fluid and no gross abdominal lesions.

On opening the chest, there was no excess of fluid. Both pleural cavities were largely obliterated with fibrous adhesions. The lungs were removed with difficulty and were covered with a thick fibrous pleura. On section, the right lung was almost solid except for a small portion at the base. The cut surface was of a dark grayish color, almost black, and very dense. A small portion at the base was air-containing. The left lung was much the same as the right except that there was a small portion at the apex and a larger portion at the base that was air-containing. The solid portion looked like that of the right lung. There were enlarged pigmented glands just beneath the sternum.

The right side of the heart was rather large, but it presented no gross lesions. The mitral ring was somewhat distended and the musculature of the left heart was flabby. The aortic valves were in good condition. There was a slight sclerosis at the base of the aorta.

The spleen was about normal in size. The liver was free of adhesion, and its cut surface showed a slightly mottled appearance due to dark areas around the central vein. The kidneys showed no gross lesions. The mucosa of the bladder was slightly injected. The prostate was not enlarged. The skin was examined for evidence of actively growing moles but none was found.

The death certificate stated that the patient died of carcinoma of the lung, with cardiac failure.

Microscopic examination of the tumor growth, under low power, showed it to be

made up of islands that stain deeply with eosin with very few cells present. Other areas were very cellular and contained considerable pigment. Under the higher power, the areas staining with eosin appeared to be coarse bands with practically no nuclei and containing some pale yellowish pigment. In the cellular areas the cells were largely spindle-shaped, but round and oval cells were present. In places the cells were packed full of pigment while in others they contained it in smaller amounts. A diagnosis of melanotic sarcoma with islands of degeneration, was made.

Grossly, the nodules in the lung felt like a malignant growth. Sections from the first case were somewhat puzzling on account of the large amount of homogeneous structureless sort of fibers. There were definite islands that looked like melanotic sarcoma, but where could such large tumors originate without some primary focus? The condition, at first, was looked upon as a dense fibrosis with a dense pigment deposit. When we got a second case, almost identical with the first, both cases were studied more intensely and the only conclusion that could be drawn was that these were malignant tumors and the homogeneous material was necrotic tissue. Then it was peculiar that there were no metastases found, except in the bronchial glands, in the other organs of either case. These bodies were looked over for a possible primary focus in some other part but none was found. In these two cases, it almost seems that the condition was primary in the lungs, but even here, a primary focus could have been rather diffuse in the skin, the mouth or rectum and been easily overlooked.

Smith,[1] in his paper, states that it is possible to classify these tumors by a study of the pigment-producing cells. He states that the cells that produce pigment contain it in uniform sized granules. That cells from certain areas always produce the same sized and shaped granules. Other cells absorb these granules after they escape from the producing cells. In the absorbing cells, the pigment is present in granules of various sizes often being in large masses. In making a classification of these tumors, cells containing the pigment in uniform sized granules are studied and if all of these are epithelial, the growth is classed as a carcinoma, etc.

We have gone over our sections, following his directions, but in the little time at our disposal since reading his paper, we have not had time to satisfactorily classify these cases so as to determine their origin. It seems to be quite evident, on going over a series of these sections, that the pigment is not uniformly distributed and that there are cells that contain it in small, even-sized granules and that others contain it in masses. The granules of the producing cells, in our cases, all seemed quite small and the cells seemed to be epithelial in type, so all of them would be carcinomas.

As to treatment of lung tumors of all kinds, there is none except palliative treatment. One thing that seems to be often overlooked is that both chests may be full of fluid which can be removed by tapping, much to the comfort of the patient.

1. Smith, David T.: "Evidence Showing the Existence of Two Distinct Types of Pigment Cells Capable of Giving Rise to Melanotic Tumors," Bull. John Hopkins Hosp., Vol. xxxvi, p. 185.

ABSTRACT OF DISCUSSION.

Dr. G. Werley, El Paso: The diagnosis of these conditions can be easily missed. Some are even missed at autopsy. To be accurate, the post mortem must be far reaching and carefully done. Every organ in the body must be carefully studied. Such tissue as the prostate and suprarenals must be thoroughly examined for any evidence of metastatic deposits or for primary foci. The great benefit from post mortems comes from making us more careful in our diagnosis. The harder we fall the more cautious we are next time.

Dr. I. S. Kahn, San Antonio: The commonest form of tumor of the lung that I see is the metastatic carcinoma following breast amputation, usually referred for possible tuberculosis on account of cough and progressive weakness. None of us see many primary chest malignancies. My own experience is limited to three cases. Last year I saw a boy 16 years of age, in whom the autopsy revealed a lymphosarcoma. The most prominent symptoms were extreme dyspnea from rapidly recurring pleural exudate, requiring almost daily tappings. In fact, on one occasion the exudate recurred within an hour after emptying the chest, the x-ray picture showing the pleural cavity almost full even after such a brief interval. These rapidly recurring exudates and an amount of dyspnea out of proportion to the pulmonary involvement seem characteristic diagnostic points in these thoracic neoplasms.

Dr. M. L. Graves, Galveston: Secondary tumors of the lung are frequent, but primary tumors are very rare. It is hard to differentiate the two. I have seen two cases of primary tumor of the lung. Sometimes one can make a diagnosis from the examination of the sputum. The bits of malignant cells sloughed off may be small and infrequent. In such cases it takes days and days of repeated examinations to detect the condition. For this reason most of the tumors of the lung are passed undiagnosed. I have never seen a primary tumor in a patient under forty years of age. Most of the time one cannot be sure of the diagnosis of a primary tumor until the post-mortem examination.

Dr. Wm. Keiller, Galveston: I see no reason why melanotic sarcoma cannot be found anywhere in the body. In sectioning a brain recently, I found many large branching pigmented cells in the pia mater covering the oblongata and upper spinal cord; so I see no reason why even here one may not have a primary melanotic sarcoma. It is true I have only found these pigmented cells in the pia mater of the negro.

SYMPTOMS AND DIFFERENTIAL DIAGNOSIS OF THYMUS HYPERPLASIA IN INFANCY.*

BY

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Thymus hyperplasia in infancy presents an inconstant syndrome more often than it does a clinical entity, and a desire to discuss this varying symptomatology is responsible for the presentation of this paper today.

SYMPTOMS.

Dyspnea in some form is probably the symptom which is common to all cases of enlarged thymus. This is either continuous or remittent, but is more likely to be continuous in the young infant. In the aggravated cases, this respiratory difficulty is punctuated by extreme cyanosis or suffocative attacks, and sometimes death occurs in one of these. The type of dyspnea to which the appellation "thymic asthma" has been applied has also been frequently described.

Convulsions may occur, either simultaneously with an attack of severe cyanosis, or independently. It should be recalled that convulsions are not infrequently the only symptom noted in thymus hyperplasia.

Stridor, though occurring in conditions other than enlarged thymus, is undoubtedly often associated with it. Freemen describes a case in which stridor was the only symptom indicative of thymus enlargement, and the presence of this symptom should awaken suspicion.

PHYSICAL SIGNS.

Careful percussion in some cases yields information of definite value. If the "threshold method," in which the observer is guided more by tactile sense of resistance than by auditory detection of altered pitch, reveals dullness extending more than one centimeter to either side of the sternal margin, an enlarged thymus may be suspected. It is of added significance if this dullness merges with the normal area of heart dullness. Detection of a mass in the suprasternal notch is an uncertain sign at best, and Jackson's method of demonstrating tracheostenosis by bronchoscopy is of limited application only.

The *x*-ray evidence probably constitutes our most reliable aid in establishing a definite diagnosis, but in the interpretation of plates one must be guided by a knowledge of the variations in the size and position of shadows in normal infants, as well as an understanding of the fact that a gland which is only thickened in an antero-posterior direction will not cast an abnormal shadow on a flat plate. In order to obtain satisfactory röentgenograms, not blurred by motion of the patient, exposures requiring less than one-tenth of a second are to be preferred. When a wide median shadow is observed, it may be necessary to differentiate the source of this shadow from enlarged bronchial glands, or mediastinal tumor, or tumor in the parenchyma of the lung. It is then advisable to make fluoroscopic observations to determine the range of mobility of the shadow in response to tilting the patient from side to side, for this maneuver will cause the heart to move, and the thymus being attached to the pericardium will move likewise. When the *x*-ray evidence is inconclusive, treatment should not be withheld if the symptoms are at all compatible with thymus enlargement. In estimating the value of treatment, subsequent röentgenograms may be made. It occasionally happens that the second *x*-ray does not show a diminution in the size of the shadow, but if there has been clinical improvement this should be taken as the more weighty criterion in judging the reasonableness of the treatment.

Thymus hyperplasia in the newly-born must be differentiated from other causes of dyspnea and cyanosis, while in later infancy the causes of stridor must also be considered.

DIFFERENTIAL DIAGNOSIS.

Cerebral Hemorrhage. In cerebral hemorrhage the diagnosis is aided by finding a prolonged bleeding and coagulation time, or by finding a bloody spinal fluid or fluid under increased pressure. Signs of cerebral irritation, such as nystagmus, facial distortion or palsies, pupillary irregularities, or a tense bulging fontanel, are significant when they are found.

Congenital Heart Disease. Because of the constancy of cyanosis as a symptom in congenital heart lesions, this condition should be thought of when attempting to establish the presence of thymus hyperplasia. The diagnosis of congenital heart disease is facilitated, fortunately, by the presence of a murmur in the large majority of cases. This murmur is systolic in time, except in cases of patent foramen ovale in which the murmur is presystolic, and in patent ductus arteriosus in which the murmur is heard through diastole. Because of the thinness of the infant's chest wall, a thrill may sometimes be felt in pulmonary stenosis. In view of the many cases which show no murmur during life (presenting merely varying degrees of cyanosis), but reveal a heart lesion at autopsy, absence of a murmur does not positively eliminate this diagnosis. In this connection, I have observed several cases in which enlarged

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thymus and congenital heart disease seemed to exist in the same patient. In puzzling cases, the electrocardiograph should be used.

Diaphragmatic Hernia must be considered as a possibility when an infant has dyspnea and cyanosis. These attacks are more likely to be associated with food taking and tend to be relieved by holding the infant upright, recurring when it is laid down. In a suspected case, the diagnosis could be readily established by appropriate fluoroscopic and röentgenographic examinations.

Bronchial asthma is likely to come up for consideration because of the cyanosis and dyspnea it produces. True allergic asthma is practically always accompanied by abundant typical rales, the expiratory phase of respiration is prolonged, and in a well-marked case there should be an eosinophilia. In perplexing cases, skillful skin testing would be helpful in establishing a diagnosis.

Congenital Pulmonary Atelectasis must be considered because of the cyanosis and convulsions it produces. In these cases it is quite characteristic to obtain a history of pronounced asphyxia at birth, and of difficulty in resuscitation. It is frequently noted, too, that these patients will not cry, or the cry is very feeble. The physical signs are not typical or invariable, but precaution may reveal altered resonance over the affected lobe or lobes, and if breath sounds are also diminished in these places, a presumptive diagnosis is justified. Röentgenograms will now and then be of aid in demonstrating areas of increased density.

The stridor of thymus hyperplasia may be differentiated from congenital laryngeal stridor, from catarrhal laryngitis (croup), from intralaryngeal foreign body, and from malformations of the epiglottis by means of a careful inspection of the larynx with a direct vision laryngoscope. Similarly, laryngeal diphtheria and other forms of laryngitis associated with membranous exudate, such as streptococcic or influenzal infections, can be ruled out. Laryngismus stridulus and breath-holding as phenomena of spasmophilia could be detected by demonstrating other signs of tetany, such as the facial phenomenon of Chvosteck, Trousseau's sign and the altered electrical reactions.

In conclusion, it is freely admitted that the foregoing resumé is by no means encyclopedic. It is submitted, rather, in the hope of rendering more easy the difficult task of differentiating thymic hyperplasia from the commoner diseases which may sometimes simulate it.

ABSTRACT OF DISCUSSION.

Dr. Ralph Spence, Dallas: As a rule, the majority of thymus hyperplasias are diagnosed at operation. They are very poor operative risks; as soon as the anesthetic is given, they promptly die, or are resuscitated only with difficulty. I have observed six cases. The average symptoms are as follows: The baby begins to cry at home, develops a tendency to hold his breath, begins to get blue, and appears to the mother as if he will die. The doctor is called, but when he arrives the baby is feeling all right again. Should these attacks continue, I recommend an *x*-ray examination to determine if there is any thymus enlargement. A baby that has occasional convulsions that cannot be otherwise explained, should also be suspected of having thymus hyperplasia.

Dr. Boyd Reading, Galveston: It has been observed in the John Sealy Hospital that the majority of the harelip and cleft palate cases have thymus hypertrophy. The histories as well as the physical examinations were usually negative. They were not recognized until the anesthetic was given, and usually with disastrous results. It has now been made a rule of the hospital to *x*-ray all babies for thymus hyertrophy before they are given an anesthetic. I have no explanation for the incidence of thymus hypertrophy in the harelip and cleft palate cases.

Dr. G. Werley, El Paso: I would like to report a recent autopsy on a baby that showed a markedly enlarged right ventricle, with one coronary artery coming off of the pulmonary artery. All the symptoms before death pointed toward an enlarged thymus, which was not found post mortem.

Dr. Edwin G. Schwarz, Fort Worth: I wish to present two cases that came under my observation. (1) One was a case in which the *x*-ray demonstrated a large thymus. There were symptoms of hypertrophy. The patient received from 8 to 10 treatments with apparently no results. (2) The other case was a baby who had all the symptoms of an enlarged thymus. However, the *x*-ray did not show any hypertrophy. Treatment was instituted and markedly beneficial results were noted. These cases are cited to illustrate the fact that response to treatment is the main criterion upon which to go and is the principal proof of the diagnosis.

Dr. H. P. Ledford, Wichita Falls: The largest thymus I have ever seen was one weighing 67 grams. During life the *x*-ray did not demonstrate any enlargement at all, and percussion also was of no avail. This illustrates the fact that oftentimes one cannot be sure of his diagnosis and can only resort to therapeutic tests.

Dr. Kaliski (closing): Since hyperplasia of the lymphoid tissues in the pharynx and naso-pharynx is a part of the pathology of status thymicolymphaticus, children in whom this hyperplasia occurs usually early in life, should be regarded with suspicion and given a "prophylactic" radiation before being subjected to an anesthetic for tonsillectomy and adenoidectomy.

PROVIDENCE WAS NOT TO BLAME.

A few years ago, a prominent citizen in the town of D——— died of typhoid fever.

Resolutions were passed by various civic bodies, beginning with the inevitable "Whereas, Providence has seen fit to remove from our midst." A copy of these resolutions was shown to the city health officer.

"Don't blame this death on Providence," he declared. "Blame the city officials. For five years I have been urging them to install a modern water supply and sewage disposal system."

This health official was familiar with statistics taken throughout the world, showing that the installation of a modern water supply and sewage system is invariably followed by an astounding fall in the prevalence of typhoid fever.—*Hygeia.*

SIGNIFICANCE OF PUS IN THE URINE.*

BY

JOHN L. WHITE, M. D.,
HOUSTON, TEXAS.

I have a very difficult subject to discuss because there are so many pathological conditions in the urinary tract that may cause pus in the urine. Any inflammation of the genito-urinary tract, from the kidney to the external urethral orifice, will cause pus in the urine. A carefully taken history will give us a fair idea of the origin of the pus. But to definitely locate the source of the pus in the urine may be a very difficult problem and frequently requires a complete urological examination. Suppose you have a patient who is passing pus in the urine, how will you go about locating the source of this pus? Urethritis and strictures, tumors, etc., along the urethra should first be eliminated. This can be done by inspection, examination of the discharge, diagnostic sounds, and other such methods. Rectal examination should be made in all male patients. The fluid from the prostate and seminal vesicles should be examined for pus, bacteria, and the normal contents of these glands. After these examinations, a catheterized specimen of urine should be obtained. If the source of the pus has not been located, a cystoscopic examination should be made at this time.

The bladder mucosa will resist an enormous amount of bacterial invasion under normal circumstances. When it becomes infected there is usually a lowered resistance due to several predisposing causes, such as trauma, congestion and retention of urine. Under traumatism may be mentioned foreign bodies, instrumentation, surgical operations, pelvic fractures, and injuries to the bladder during delivery. Congestion of the mucosa may be due to cold, dampness, excessive salt, chemicals, or to pelvic and rectal abnormalities. Retention due to prostatic adenomata and carcinoma, contraction of the vesicle neck, median bar, tumors, cysts, spinal cord disease, diverticula, uterine growths, or cystocele, all reduce the resistance of the bladder mucosa and usually produce a pyuria. The exciting cause is bacteria and, in the order of their frequency, these are the colon bacillus, the staphylococcus, the streptococcus, the tubercle bacillus, B. typhosus, B. paratyphosus, the proteus group, and the gonococcus. In acid urines, the colon, tubercle and typhoid bacilli are most frequently found; in alkaline urines are usually found the staphylococcus, streptococcus, and proteus group.

Inflammation of the bladder, stones, tumors, diverticula, enlarged prostates and foreign bodies, may be seen through the cystoscope. Spinal cord diseases may be eliminated by physical examination, examination of the blood and spinal fluid and by the cystoscopic appearance of the bladder.

If the trouble is not in the bladder, plain *x*-ray pictures should be made of the entire genito-urinary tract. These should show the size of the kidneys, stones, and tuberculosis if calcification has taken place. Having completed the inspection of the bladder, one is in a position to know whether the ureters should be catheterized, or not. Catheterizing the ureters will usually show any obstruction between the kidneys and the bladder. Many use the wax-bulb catheter in making this examination. If the trouble is above the bladder, it is usually necessary to have an *x*-ray examination and it may be necessary to have a pyelogram and ureterogram made. This should furnish information as to stones, strictures of the ureter, tumors, congenital abnormalities and hydronephrosis. Separate specimens of urine, functional tests and pyelograms will greatly aid in the diagnosis of hydronephrosis, pyonephrosis, abnormalities in the size and position of the kidney, and in locating stones, tubercular ulcerations in the kidney pelves and abnormalities in the kidney pelves due to renal tumors. All of these conditions may produce pus in the urine.

I have merely mentioned some of the causes of pyuria. Many general symptoms and signs will of course have to be used in making the differential diagnosis. One should make as thorough an examination as is necessary to locate the trouble, and not get in the habit of giving a little urotropin, or something of the kind, because the patient has pus in the urine. But what is worse—and is frequently done—is to do only a chemical examination and not know the patient has pus in the urine. A great many think pus will cause albumen in the urine, which, of course, is not true. More microscopic examinations of the urine should be made. Many patients require a culture of the urine to tell the kind of pus that is present. No patient with an infection of the upper urinary tract should be discharged until the urine is free of pus and the cultures are sterile. If the pus cells in the urine are counted one will be able to tell much better what progress the patient is making.

CASE REPORTS.

Case No. 1.—J. R. C., aged 40 years, male, American, a lawyer, gave a negative family history. No *x*-ray examinations. Cystoscopies had been made. He had had gonorrheal urethritis four years previous to my examination. The duration of the attack was

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 7, 1925.

one month; he was treated with injections. He denied ever having had lues and the Wassermann was negative several times. His present complaint was cloudy urine, fever of 100° F., at times, and that he had no "pep." He had no discharge or pain in the back. His present trouble started about two years ago. At one time he had a slight discharge, which was examined by a doctor who told him that it was not gonorrheal. For several months his condition had been getting worse. He had taken medicine by mouth most of the time for about two months.

The general physical examination was negative. The head, neck and teeth were in good condition. Chest and abdomen showed nothing abnormal; no areas of tenderness or tumors could be felt. There was no discharge from the external urethral orifice, and no enlarged glands were palpable; the scrotal contents were normal. Rectal examination showed the prostate slightly enlarged and soft and the seminal vesicles palpable. Fluid massaged out of the prostate and seminal vesicles showed pus three plus and no bacteria on microscopic examination. Because a catheterized specimen of urine contained a large amount of pus, I did a simple cystoscopy, which showed inflammation about the trigone and neck of the bladder. The ureteral orifices were normal. I did not catheterize the ureters because I was sure that the inflammation of the prostate and seminal vesicles would account for the cystitis. The blood examination showed nothing of interest. Urinalysis showed albumen, negative; sugar, negative; sp. g., 1020; reaction, acid; color, cloudy; pus, three plus; R. B. C., none; colon bacilli, few; gonococci, negative, and casts, none. The usual treatment for prostatitis was given and the patient recovered. The urine is now sterile and free from pus. The prostatic fluid is free of pus.

Case No. 2.—M. M. D., aged 40 years, female, American, housewife, gave an unimportant family history. She had had no previous illness except kidney trouble. About nine years ago, she was operated on for kidney stone. The left kidney was delivered, opened and explored, but no stone was found. Her present complaint was frequent attacks of severe pain in the left kidney region. With each attack she passed several gravel-like stones. She had had these attacks for the past sixteen years. Since the operation on her kidney about nine years ago, she has had pain in the right kidney region; these attacks last from two to five days, and during this time she has fever, chills, pain in the kidney region and sweats, and is forced to go to bed.

Examination of the eye, ear, nose and throat was negative. Her teeth were good; there were no rales and the breath sounds were normal. The heart was normal; the abdomen showed no tumors or areas of dullness; the kidneys were not palpable. The external genitalia were negative. Cystoscopy showed the bladder and ureteral orifices normal except for a slight generalized cystitis. On several attempts to catheterize the right kidney the catheters stopped at a point seven cm. from the ureteral orifice. Later, a small catheter passed this obstruction and about two ounces of cloudy urine passed very rapidly. The phthalein test showed: Left kidney, time of appearance, ten minutes; total in one hour, 16 per cent. The right kidney showed none in one-half hour. On examination the blood was normal. Urinalysis showed: Albumen, none; sugar, none; casts, none; R. B. C., none; pus, four plus; staphylococci, many. Urine from the right kidney contained pus four plus and a few R. B. C. Staphylococci were present. Urine from the left kidney gave a culture of staphylococci.

X-ray examination demonstrated a cylindrical shadow about one-fourth of an inch long in the region of the lower end of the right ureter. No other pathology was seen. A pyelogram showed the right pelvis to be markedly enlarged, at least three times larger than normal. The calices were enlarged and clubbed. The ureter was about three-fourths of an inch in diameter. The point of dilatation commenced at the upper border of the sacro-iliac synchondrosis. The tip of the catheter curved outward and stopped in an acute angle of the ureter at a point about two and a half inches external to the lower border of the fourth lumbar vertebra. The left kidney was large, with a triangular pelvis opposite the third lumbar vertebra. The calices were poorly defined, probably due to an attempt to remove a stone from the kidney about eight years ago. The left ureter was negative. The tip of the catheter was in the pelvis of the kidney.

You can readily see that this case could not have been diagnosed without a complete urological examination. This patient's better kidney had been operated upon without any knowledge of the condition of the other kidney. A thorough examination is necessary in all of these cases of pus in the urine.

CONCLUSIONS.

1. A routine microscopic examination of the urine should always be made.

2. If a patient has pus in the urine, the source of the pus should be located.

3. The causes of pyuria are numerous; therefore, a complete urological examination may be required to make an exact diagnosis.

MISCELLANEOUS

CORRECTION FOR TRANSACTIONS.

There is a typographical error in the report of the Council on Legislation and Public Instruction which, while of no particular consequence, should be corrected. On page 78 of the June JOURNAL, under the caption, "Optometry," appears the sentence, "It was clear that there was no intention on the part of the Optometrists to do either." There were no circumstances to which this sentence could apply, and it is possible to draw the conclusion that the attitude of the Optometrists in some particular was unfavorable. The sentence referred to had been eliminated. It was the intention of the author of this report to eliminate both sentences, as a matter of fact. The statement originally was, "Our only intention was to see that the Optometrists did not include in their amendments the right to practice medicine or attempt to exclude the medical profession from practicing optometry. It was clear that there was no intention on the part of the Optometrists to do either." There is no complaint, but because of our amicable relations at the present time, we would not have the Optometrists infer that we would suspect them of ulterior motives. Indeed, that is why the two sentences were to be eliminated in the original report.

HOLMAN TAYLOR, Secretary.

MISSOURI VALLEY MEDICAL SOCIETY MEETING.

Plans are rapidly maturing for the annual meeting of the Medical Society of the Missouri Valley, in St. Joseph, September 30, October 1 and 2, 1925, under the presidency of Dr. J. W. Martin, of Des Moines, Iowa. The St. Joseph Clinical Society will hold a two-days session at the various hospitals on Monday

and Tuesday preceding the meeting. The sessions will be held in the Crystal room of Hotel Robidoux and the exhibits will occupy both the office lobby and the mezzanine balcony.

Diagnostic clinics will occupy the morning hours, while a series of symposia, contributed by the various state universities, will fill the afternoons. The annual dinner will be given at the Robidoux on Thursday evening when speakers of national prominence will be present. A "get together" smoker will be held on Wednesday evening, when the members will be the guests of the Buchanan County Medical Society and the St. Joseph Clinical Society.

The preliminary program follows: University of Nebraska Medical College: Complications of Brain Surgery—Dr. J. J. Keegan, dean of University College of Medicine; The Technique of Cervical Sympathectomy (illustrated)—Dr. John Summers, professor of surgery; Study of a Case of Membranous Bone, with Autopsy (slide)—Dr. A. D. Dunn, professor of experimental medicine; Cancer—Dr. H. E. Eggers, professor of pathology; Kansas University, Medical Department: Relation of Food Infection to Myocardial Degeneration—Dr. P. T. Bohan, professor of clinical medicine; The Present Status of Hypertension—Dr. R. H. Major, professor of medicine; Kidney Function Test—Dr. N. F. Ockerblad, assistant professor of genito-urinary diseases; University of Missouri, symposiums on internal secretions: Oxygen Supply and Metabolic Level—Chas. W. Greene, Ph. D., Columbia, Mo.; Factors Affecting the Action of the Pancreatic Hormone—Max M. Ellis, Ph. D., Columbia, Mo.; Internal Secretion of Ovaries—Edgar Allen, Ph. D., Columbia, Mo.; Thyroid and Metabolic Perversions—Dr. Walter M. Boothby, Mayo Foundation, Rochester, Minn.; The Periodic Medical Meeting—Dr. E. H. Skinner, Kansas City; Attending Staff, Washington Boulevard Hospital, Chicago, Illinois: Urological Findings in 100 Cases of Obscure Abdominal and Pelvic Pain—Dr. V. J. O'Connor; *X*-Ray Interpretations—Dr. A. R. Metz; Electro-cardiograph Interpretations—Dr. S. R. Slaymaker; Fracture of Femur With Special Reference to Neck—Dr. H. F. Lounsbury; Angina Pectoris—Dr. Robt. H. Babcock; Des Moines, Iowa: Heredity—Dr. Julius S. Weingart; Group of Papers on Anesthesia—Dr. John Russell and Dr. John Connell; Goitre Clinic—Dr. Charles Ryan; Clinic on Dermatology—Dr. J. F. Auner; Symposium on Fractures: Conservative Treatment of Fractures of Long Bones in Children—Dr. Thos. Orr, Kansas City; Fracture of the Carpal Bones—Dr. P. A. Bendixen, Davenport; Fracture of Elbow—Dr. J. A. Weinberg, Omaha, Nebraska; General Discussion of the Fracture Problem—Dr. D. Z. Dunett, Baltimore, Maryland.

ARE THE MIDWIVES OF YOUR COMMUNITY REGISTERED?

The locating and registering with the State Board of Health of midwives of their respective counties is part of the regular work of the public health nurses of the bureau of child hygiene, according to Dr. H. N. Barnett, director of this department, who is authority for the following:

"There is a state law requiring the use of prophylactic drops in the eyes of all new born babies as a preventive measure against blindness, but owing to the ignorance of many midwives practicing in the state, this law is often violated. The State Board of Health is endeavoring in every possible way to have all practicing this profession to register with it, that this silver nitrate solution be sent them free of cost with directions as to use, and to date has been successful in securing the registration of more than 2,000, but there are many more yet unregistered.

"Much difficulty is experienced not only in getting midwives to register, but sometimes it is hard to get some of them to use prophylactic drops after being shown how. The report of one nurse the last month, told of a midwife who said she had officiated at the birth of 57 children and never had used any medicine for the eyes, and didn't see the use of doing it now. However, this is not the general rule, as the most of these women are willing enough to be taught.

"In counties having public health nursing service, it is not a very hard matter to check up on them, as the nurse makes that part of the first work done on entering the county. After locating as many as possible of these midwives, the nurse then organizes midwife classes in different communities, for the purpose of giving them what training is possible." —*Texas State Board of Health Weekly News Letter.*

THE INDISCRIMINATE USE OF ROENTGEN RAYS.

The dangers attending the indiscriminate use of röentgen rays need no longer be emphasized to physicians. Most of them have been confronted with evidence, sometimes of a highly distressing character, in the persons of afflicted patients. The public, on the other hand, has not yet been adequately awakened to a realization that these highly potent rays have potentialities for harm as well as for occasional benefit. The layman has not yet learned to be sufficiently wary of quacks or other persons of unethical standing who glibly advertise the unique successes of the complex electric device—the röentgen-ray machine—that awakens awe through the ominous sputter of its radiant discharges as well as through the freely circulated story of its therapeutic performances. The New York Academy of Medicine has done a real public service in its recent report on the indiscriminate use of röentgen rays in the treatment of hypertrichosis. Among dermatologists the accepted method for the removal of superfluous hairs is the tedious but usually harmless process of electrolysis. Yet the Academy's committee on public health has secured evidence that röentgen rays are beings extensively used by commercial institutes under express guarantees of absence of harmful effects on the skin. Not only are exorbitant fees extracted from the undiscriminating and gullible public, often persons of the poorer classes among whom "good looks" are uniquely prized; but the permanent and often hazardous subsequent disfigurements actually follow. They begin as telangiectases and parchment-like atrophy, and may later go on to keratoses and malignancy. If there really are times "when ignorance is bliss," they assuredly do not include the ominous moments when a wily "beauty specialist" permits the life-killing rays of short wave length to impinge on the bearded skin of his unsuspecting victim.—*Jour. A. M. A.*, Aug. 1, 1925.

IVY POISONING.

The problem that has been studied by G. L. Krause and F. D. Weidman, Philadelphia (*Journal A. M. A.*, June 27, 1925), has been that of the preventive phase of ivy poisoning and not of the cure of the already established disease. Therapeutics was the second phase of their work. The work done by the authors confirms that: The discharge from the lesion does not disseminate the disease; the virus itself must come in contact with the part. Susceptible individuals may contract ivy poisoning at any time of the year, provided the juice of the plant comes in contact with the skin. As new findings they report that: Repeated attacks tend to shorten all the stages of subsequent attacks. Local immunity is not developed by repeated attacks of ivy poisoning. There

is such a thing as absolute (and probably permanent) immunity against ivy poisoning. In their series, two-thirds of the men who believed themselves immune were not immune. In 45 per cent of the susceptibles it was necessary that some such defect in the epidermis, as scratches, should be present before a dermatitis would develop. It appears that all of the commoner laboratory animals are immune to this virus. Pruritus ani, transient, appeared in the majority of those receiving preventive treatment; in two subjects, hemorrhoids were aggravated. The pain at the sites of intramuscular injections outweighs the danger of future attacks of ivy poisoning such as are only suppositious in the commoner walks of life. In their series of sufficiently controlled subjects, the preventive system of treatment of Strickler did not prevent; it is possible that the curative value of this system is likewise scant or nil, and that the beneficial results which have been reported are depended on and ascribable to the variable susceptibility of different individuals and the varying intensity of the irritant as applied at different times.

COSMETICS.

H. E. Miller and L. R. Taussig, San Francisco (*Journal A. M. A.*, June 27, 1925), mention the components of the cosmetics commonly employed, and give in some detail an account of skin eruptions due to their use that have not previously been reported in the literature. They describe dermatoses due to face powder, rouge, lip stick, hair dye, wrinkle remover and nail polish and give, when possible, the component responsible for the eruption. The authors believe that sufficient emphasis has not been placed on the usual components of cosmetics and the dermatoses that they may provoke. Many of the so-called eczemas in women, if carefully investigated, will be found to be cases of dermatitis venenata due to cosmetics. The anilin dye used as coloring matter in the bizarre tints of face powder, rouge and lip stick may cause a definite dermatitis. Hair dyes containing the vegetable pigments are seldom harmful, while those containing the minerals or anilin products may cause skin eruptions or general ill health. The attempted removal of wrinkles by applying phenol to large areas of the skin surface may cause considerable facial deformity and even death. A dermatitis on the sides of the neck in women may be due to irritation from recently applied liquid nail polish that comes in contact with the neck when the patient sleeps with the hands under the face. Legislation should be enacted prohibiting the use of the anilin dyes in the manufacture of cosmetics, and the application of phenol for the removal of wrinkles by unlicensed charlatans and beauty specialists.

EDDYITES OPPOSE MEDICAL EXAMINATION OF MOTORISTS.

"Organized Medicine Looking to Motorists for Revenue": thus the *Monitor*, the daily published by the followers of Mrs. Eddy. It seems that the mouthpiece of this cult is opposed to the recommendation of the American Medical Association's Committee on Physical Standards for Drivers of Motor Vehicles. This committee urged that every person driving a motor car should be required to present evidence of good eyesight, such evidence to consist of a certificate from a reputable physician who has tested the vision of the individual. It is perhaps logical that a cult that declares that "the human mind and body are myths" should view with equanimity the appalling toll of life taken by automobiles in this country. Presumably Eddyism—officially at least—does not recognize the reality of errors of refraction, yet it is not among the least amusing things in this drab world to note the number of persons in any Eddyite church who wear glasses.—*Jour. A. M. A.*, June 27, 1925.

RUBBER TUBE REMOVED FROM CHEST CAVITY.

To The Editor.

A child 2 years of age, was first seen by us June 6, 1925. Last February the child had pneumonia in left lung, complicated by empyema. Drainage was attempted then with a rubber tube placed between

Radiogram showing 4-inch rubber drainage tube in left thoracic cavity. The smaller tube was placed on the opposite side for comparison.

the ninth and tenth ribs, in the axillary line. One day while the dressing was being changed the tube disappeared. The drainage continued intermittently and was facilitated two or three times by stab punctures into the chest cavity without insertion of tubes. The little patient ran a continuous fever over the entire four months' period, and showed great emaciation.

X-ray examination revealed the tube, four inches in length, within the chest cavity, the upper end being one inch from the spine. The lung was collapsed and the heart dislocated far into the right side of the chest. Under general anesthesia, a rib resection was done, the tube removed, and a pint of pus evacuated. Recovery is progressing rapidly, at present.

John B. Thomas, M. D.,
Midland, Texas.

June 25, 1925.

EVOLUTION.

The intellectual world has been regaled during the last few weeks with the spectacle of an attempt to establish scientific facts by legal decision. The procedure, while interesting, could obviously be only a fiasco. To some extent it gave opportunity for scientists of note to utilize the publicity attached to the trial for the education of those who might otherwise be but little interested in the methods and statements of science. At the recent annual session of the Association in Atlantic City, the House of Delegates

formally endorsed a resolution calling for the removal of any restrictions on the teaching of science, and stating that the facts of evolution were fundamental to a proper comprehension of the basic medical sciences. The views which, no doubt, animated the unanimous approval of the delegates, have been well expressed in a work, now in its third edition and its fifth printing, by that well known leader in medical science, William Williams Keen of Jefferson Medical College, Philadelphia. In 1922, Dr. Keen delivered a commencement address at the Crozer Theological Seminary under the title, "I Believe in God and in Evolution." Recognizing that the attitude of the church, and especially of the clergy, toward science and toward the origin of man is of incalculable importance, Dr. Keen attempted to reconcile belief in a higher power with scientific fact. He made it clear that evolution antedated Darwinism and cited numerous evidences from medical literature to support the view that the cycle of evolution includes not only the development of animal life by an evolutionary process, but also a direct relationship between the growth of man and the growth of animals. He concluded finally that man's ascent from an animal of low intelligence seems to be absolutely proved by the many phenomena that reveal identical organs and identical physiologic processes in the animal and in the human body. Dr. Keen does not find this inconsistent with his own spiritual belief, nor, indeed, with his personal belief in the immortality of the soul, and many others are able to adopt a similar point of view. Regardless of one's convictions theologically it is well, in times when man's thoughts are confused by the intricacies of oratory and legal procedure, that there should be available scientific men with clear minds who are able to state their knowledge and their beliefs and to distinguish clearly between well established fact and unreasoning credulity.—*Jour. A. M. A.*, Aug. 1, 1925.

MARSHALL JOINS RANKS OF PROGRESSIVE CITIES.

Marshall, Texas, is making preparations for becoming a large milk distributing center, thereby leading other cities of the state in this industry. Following the petitioning of the city council some six months ago by the dairymen of that city, to pass legislation to stabilize milk production, and protect the consuming public from milk of an inferior quality, the council adopted the standard milk ordinance recommended by the state board of health and the United States Public Health Service. As a result of this action every dairy in territory adjacent to Marshall immediately went to work making arrangements for improvements along sanitary lines in order that where not already qualified, they could produce and sell Grade A milk.

On May 13, an unusual celebration was held by the citizens of Marshall commemorating the entrance of that city into the ranks of those encouraging a greater consumption of dairy products by offering to the public a safe quality. On this day, dairymen were hosts to the general public, inviting inspection of their tuberculin tested herds, sanitary barns, modern milk utensils, improved methods of milk handling, including steam sterilizers, milk coolers, and white uniformed milkers. Appetizing lunches made primarily from dairy products were served visitors at all dairies.

Leslie C. Frank of the United States Public Health Service, and Dr. H. O. Sappington, state health officer, were present on this occasion. After a thorough inspection, Frank stated that Marshall had made more progress in the milk industry in the last six months than many towns had made in 15 years, and that this city would be promptly entered on the accredited list of cities producing safe milk. —*Texas State Board of Health Weekly News Letter.*

MANY CHILDREN ARE VICTIMS OF POISON.

Seventy children among the policyholders of a large insurance company were victims of accidental poisoning in 1924. Young children furnished the largest group. In fifty-seven of these cases the nature of the poison was ascertained. Strychnin, one of the deadliest poisons, caused 14 deaths; lye and other caustic alkalis, 6; fireworks, 5; vermin exterminators, which usually contain arsenic, 5; and kerosene and gasoline, 3.

The strychnin was taken in the form of cathartic pills by seven victims and in tonics by three victims. Strychnin is an ingredient of many "patent" or proprietary medicines, but the law in most states does not require any caution label to be placed on the package.

It is unpardonable negligence on the part of any government to permit such deadly drugs to be dispensed in mixture for medicinal use without compelling the manufacturer to put a conspicuous warning label on every bottle or package.

Parents should be repeatedly and emphatically warned to place every bottle, box, or package containing anything of a poisonous nature well out of reach of children. They should instruct the children, just as soon as they are old enough to comprehend the matter, in the importance of handling poisons with care, the dangers of poisons and especially the dangerous nature of many "patent" medicines. This should be taught in all schools as well as in the home.

Only when knowledge of these facts becomes universal and when the necessary precautions are taken in every household, will we be saved from the deplorable and unnecessary loss of life from accidental poisoning.—*Hygeia.*

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Scarletinal Antitoxin (Unconcentracted)-Mulford.—A scarlet fever streptococcus antitoxin (*Jour. A. M. A.*, May 2, 1925, p. 1338). It is prepared from the serum of horses treated with subcutaneous injections of toxic filtrate from cultures of scarlet fever streptococci and also with intravenous injections of the streptococci themselves. Each cc. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 cc. (prophylactic dose) and in packages of one vial containing 40 cc. (therapeutic dose). H. K. Mulford Company, Philadelphia.

Scarlet Fever Antitoxin-Lederle (Unconcentrated).—A scarlet fever streptococcus antitoxin (*Jour. A. M. A.*, May 2, 1925, p. 1338). It is prepared by immunizing horses by the subcutaneous injection of the toxic filtrate obtained by growing the scarlet fever streptococcus in broth; also by injection of cultures of the scarlet fever streptococcus. Each cc. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one springe containing 10 cc. and in packages of one cylinder containing 50 cc. with an intravenous injection outfit. Lederle Antitoxin Laboratories, New York.

Insulin-Stearns 80 Units, 5 Cc.—Each cc. contains 80 units of insulin-Stearns (New and Nonofficial Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

Schick Test-Lilly. — Diphtheria Immunity Test (Schick Test) (New and Nonofficial Remedies, 1925, p. 50) is also marketed in packages of two vials,

one containing diphtheria toxin sufficient for fifty tests and the other vial containing the proper amount of diluent. Eli Lilly and Company, Indianapolis.—*Jour. A. M. A.*, July 25, 1295.

Insulin-Stearns 80 Units, 10 Cc.—Each cc. contains 80 units if insulin-Stearns (New and Nonofficial Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

Tuna Fish Protein Extract Diagnostic-P. D. & Co.—A protein extract diagnostic-P. D. & Co. (New and Nonofficial Remedies, 1925, p. 289). Parke, Davis & Co., Detroit.—*Jour. A. M. A.*, July 4, 1925.

Loeflund's Malt Extract.—A preparation essentially similar to extract of malt U. S. P. It is marketed as Loeflunds malt extract with calcium (containing calcium lactophosphate 0.5 per cent.) and Loeflund's malt extract with cod liver oil (Norwegian cod liver oil 33 per cent). Britt, Loeffler & Weil, New York, distributor.—*Jour. A. M. A.*, July 11, 1925.

Neosalvarsan Dose XII.—Each tube contains neosalvarsan (New and Nonofficial Remedies, 1925, p. 50), 1.8 gm. H. A. Metz Laboratories, Inc., New York.

PROPAGANDA FOR REFORM.

Listerine.—So far as the composition is concerned, the use of Listerine as a simple mouth wash is unobjectionable. Unfortunately, the manufacturers are not content to recommend and advise it exclusively for the field in which it has a place. Listerine is exploited with an air of conservatism, even a statement of composition is given—which, however, is essentially meaningless. While the claims as to antiseptic efficiency and the claim that it is a deodorant (it is not a deodorant, but merely covers one smell with another), may in general do little harm when Listerine is used as a "toilet preparation," the advertising that accompanies trade packages contains recommendations for its use in serious conditions, the self-treatment of which is a danger to the individual and inimical to the public health. The potency for harm that these recommendations have, is all the greater because the manufacturers affirm that they "do not advocate self-medication, even with Listerine." The trade package circular recommends the use of Listerine in "tonsilitis": this may easily lead to its employment in undiagnosed cases of diphtheria, and dependence on it in such conditions may be the means of spreading this infective disease. The circular suggests its use in "bronchitis," which may be tuberculosis or pneumonia. It recommends its use in "leucorrhea;" this may lead to the self-treatment of a serious infection. The self-treatment of any such conditions is fraught with danger to the individual and to the community.—*Jour. A. M. A.*, July 4, 1925.

Treatment of Snake-Bite.—The indications for the treatment of snake-bite are the same as those for any other kind of poisoning: namely, first to remove the poison; secondly, to remove its effects. Immediate interruption of absorption should be attempted by application of a bandage for a period. Removal of the poison from the wound after having enlarged it, by sucking, by washing, or by destruction by red heat or a caustic is the next thing to attempt. The third and most important remedy is he injection of antivenom serum, which must be specific for the particular venom involved.—*Jour. A. M. A.*, July 4, 1925.

The Parathyroid Hormone.—The significance of a hormone elaborated by the parathyroid structures for the metabolism of calcium, at least so far as the relation of the content of this element in the blood is concerned, seems to be well established. The promise of preparing an effective parathyroid product seems about to be fulfilled in various places. The publications of Hanson in 1923 show that he was actively engaged in the extraction of an active product. Since then success had attended the investigations of Fisher and Larson, and particularly those of Collip. Both Collip and Fisher and Hanson warn against the possible dangers of unwarranted therapy with potent preparations, for symptoms of atonia, depression, diarrhea and dyspnea are readily produced by large doses of a potent preparation.—*Jour. A. M. A.*, July 11, 1925.

Rheumeez Not Accepted for N. N. R.—The Council on Pharmacy and Chemistry reports that "Rheumeez" (Casco Laboratories, Elizabeth, N. J.,) is claimed to be magnesium cinchophen, the magnesium salt of 2-phenyl-quinolin-4-carboxylic acid. From the advertising issued for the product, one gets the impression that the production of the magnesium salt of cinchophen is a noteworthy achievement on the part of the Casco Laboratories and that the product is superior to cinchophen. However, this compound is the analogue of the well known cinchophen-sodium. When a solution of rheumeez is treated with dilute hydrochloric acid, cinchophen is precipitated; therefore the compound will be decomposed in the gastric fluid of the stomach and its administration will be equivalent to the administration of cinchophen accompanied by an insignificant amount of magnesium. The council found rheumeez unacceptable because (1) it is an unessential modification of the established drug cinchophen; (2) it is marketed under a nondescriptive therapeutically suggestive name, and (3) it is advertised with unwarranted and misleading claims which will lead the public to attempt self-medicating in conditions which require the diagnosis and supervision of physicians. —*Jour. A. M. A.*, July 11, 1925.

Prevention of Mosquito Bites. — Numerous preparations have been proposed, to be applied to exposed parts of the body to prevent mosquitos from biting. Among these are oil of pennyroyal, resorcin monoacetate euresol, various forms of petroleum, and powders and washes similar to the following: oil of eucalyptus 25 cc., talc 50 gm., starch 325 gm., oil of cinnamon 1 cc., oil of pathouli 1 cc., oil of santal 4 cc., alcohol to make 400 cc.—*Jour. A. M. A.*, July 11, 1925.

Goiter Prevention.—Persons affected with thyroid disturbances have been aroused to the possibilities of relief that modern medicine offers, the public has been awakened to the problems that confront many of our communities, and the medical profession has been stirred to a realization of its duties to the public in demanding the institution of safe relief measures. The enthusiasm for relief measures must not be allowed to initiate the public into unwise or unwarranted practices. The fundamental concern of the health official is the prevention of endemic thyroid enlargement. In line with this the Cincinnatti Board of Health proposes to confine its work to prevention and will refer children known to have thyroid enlargement to their family physician. Iodized table salt should not be regarded as a "cure all." It will probably not cure a single goiter, and the primary purpose of the preparation is to aid in providing the iodin that is essential to the proper functioning of the thyroid gland in normal persons who compose the majority of the population. The exceedingly small quantity of iodin made available in this way must be skillfully supplemented by physicians when definite thyroid enlargement exists. —*Jour. A. M. A.*, December 6, 1924.

The Wilkens-First Cancer Cure.—During the last ten years literature has been sent out by an illiterate advertising cancer quack, one J. K. Wilkens of Muscatine, Iowa. Apparently it is an escarotic paste.

Some years ago it was stated that this treatment had been endorsed by Dr. F. H. First and used in a hospital in Rock Island. Dr. First admitted that he was using the preparation. Dr. First was asked to disclose to the medical profession the composition of the preparation which he was using. He replied that, until such time as he could "report on a list of cured cases" he could "see no reason to make the treatment public." This was in 1917, but Dr. First does not appear to have reported the list of cured cases nor given the profession the formula.—*Jour. A. M. A.*, July 11, 1925.

Lowering the Blood Pressure with Liver Extract.—The effect of liver extract administration on blood pressure was studied in thirty-three cases. In these cases hypertension had persisted for varying periods. Physiological sodium chloride solution of extract of the liver was injected intravenously. Twenty-five patients experienced no disagreeable symptoms, most of them reported apparent relief. In eight cases there were reactions of varying degree, some of which resembled protein shock. There was an average fall in the systolic pressure of 62 mm., and an average fall in diastolic pressure of 28 mm. Investigations are under way to determine the constituent or constituents of liver responsible for the effect on blood pressure. The clinical value of liver extracts will depend, not only on the development of a stable and uniform extract, but also on the permanence of the fall in pressure and its relation to other pathologic changes existing in the body.—*Jour. A. M. A.*, July 18, 1925.

Mizar.—Mr. Sorokowski, formerly of Chicago and now apparently operating from a suburb, Oak Park, sells, "especially to the foreign element" a product that he calls "Mizar" as "the most effective remedy for rheumatism," mizar comes in the form of an ointment. Two cases of dermatitis venenata from its use have been reported. The A. M. A. Chemical Laboratory examined Mizar and reports that the preparation may be considered essentially an ointment, the chief active ingredient of which is an extract of capsicum. Presumably a product of this sort appeals to those purchasers of "patent medicines" who feel that they are not getting their money's worth unless the preparation has an appalling smell or taste, or produces some physiologic reaction that will make them sit up and take notice. —*Jour. A. M. A.*, July 18, 1925.

Administration of Hexamethylenamin.—In a solution containing hexamethylenamin 3 gm., acid sodium phosphate 9 gm. and distilled water 120 cc. a faint reaction for free formaldehyde is obtainable, though the reaction is much less intense than that obtained in a solution of the same amount of hexamethylenamin in 0.2 per cent. hydrochloric acid. In the course of days when kept at ordinary room temperature and in diffused light the formaldehyde reaction in the solution increases. When recently prepared the acid sodium phosphate-hexamethylenamin mixture is not objectionable; however, in view of the comparative instability of the mixture it is advisable, either as Useful Drugs recommends, to administer acid sodium phosphate midway between the doses of hexamethylenamin or else to add hexamethylenamin to a solution of acid sodium phosphate just before administration.—*Jour. A. M. A.*, July 18, 1925.

Sodium Iodid in Asthma.—The use of iodids as adjuvants in the treatment of asthma seems to be of such general acceptance that recent medical literature reveals few special studies of its effects in this condition. The intravenous administration of sodium iodid in this condition has been reported. However, a report on the intravenous administration of sodium iodid in the Mayo Clinic states that there is no advantage in using sodium iodid intravenously, except in a few cases where massive doses might cause iodism. The Council on Pharmacy and Chemistry does not endorse the routine administration intravenously of sodium iodid. The Council holds that intravenous medication generally is not as safe as oral administration, and further, that there is little if any justification for the intravenous administration of such agents as sodium iodid, because their systemic effects are promptly obtained from oral administration.—*Jour. A. M. A.*, July 25, 1925.

NEWS

Texas Society of Orthopedic Surgeons at their regular meeting in May, 1925, elected the following officers for the year 1925-1926: President—J. R. Bost, M. D., Houston; first vice-president—C. F. Clayton, M. D., Fort Worth; second vice-president—E. P. Cayo, M. D., San Antonio, and secretary-treasurer—B. L. Schoolfield, M. D., Dallas.

Houston Ophthalmological - Oto - Laryngological Society at its April meeting, elected officers, as follows: President—Dr. Palmer M. Archer of Houston; Vice-President—Dr. Dudley of Goose Creek; Secretary—Dr. Wm. Strozier of Houston. The society meets at 8 p. m., the first Thursday of each month on the roof of the Keystone building.

The New Plant of the Abbott Laboratories which is now nearly ready, is to be one of the most complete pharmaceutical and research plants in the world. This plant is located near Waukegan, Illinois, twenty-five miles north of Chicago on the C. & N. W. R. R. The company owns about twenty-five acres of ground which will provide for the future expansion of their business. Large quarters will be provided for extensive research work now being carried on by a large staff of chemists and here also the newest synthetic medicinal chemicals will be made in large quantities by improved processes, insuring purity and accuracy. Here also will be extracted from the crude drugs the medicinal principles used largely throughout the pharmaceutical industry, as well as by the medical profession.

The administration office of the Abbott Laboratories, located for many years in Ravenswood, will be moved about October 1, to the new plant.

Texas Public Health Association Board of Directors held their annual meeting at the Stephen F. Austin Hotel, Austin, May 4, 1925. The following members were present: Mr. J. W. Butler, Galveston; Mrs. J. D. Finnegan, Kingsville; Drs. C. W. Goddard, Frank Gregg, Z. T. Scott and Mrs. S. M. N. Marrs, Austin; Dr. J. B. McKnight, Sanatorium; Mr. J. B. Rawlings, El Paso; Mr. Jas. Shelton, Houston; Dr. Holman Taylor, Fort Worth, and Dr. S. E. Thompson, Kerrville. Mr. Arthur J. Strawson, field supervisor of the National Tuberculosis Association, New York City, and Mr. D. E. Breed, executive secretary of the Texas Public Health Association, were also present.

Following the reading of the minutes by Secretary Z. T. Scott, and the report of the treasurer, Mr. H. A. Wroe, which, due to the latter's illness, was read by the executive secretary, the meeting was addressed by the members of the staff, as follows: "Publicity and the Seal Sale," Mr. Lewis E. Bracy, educational secretary; "The Modern Health Crusade and Child Health Education," Miss Pansy Nichols, children's secretary; "The Mexican Department," Mr. R. C. Ortega, Mexican secretary; "The Nursing Work," Mrs. May Fair, public health nurse; "The Work Among Negroes," Rev. F. R. Barnwell, lecturer to negroes.

Interspersed among these talks were impromptu remarks by members of the board of directors. The principal address of the day was made by Mr. Arthur J. Strawson, field supervisor of the National Tuberculosis Association, who has been in Texas some part of each of the past three years and is therefore closely in touch with the work in this state.

The School of Aviation Medicine had a special session for Reserve and National Guard Officers during the six weeks' course at Mitchell Field, Long Island, New York, from May 1 to June 15, 1925. The following officers took the preliminary course and have been qualified to perform the physical examination for flying: Major Wm. D. Petit, M. R. C., Thorndale, Texas; Major I. E. Ruhl, M. R. C., Kansas City, Mo.; Major L. W. Fetzer, M. R. C., Dallas, Texas; Major A. W. Burke, M. R C., Chicago, Ill.; Major A. McAllister, M. R. C., Oteen, N. C.; Major V. W. Maxwell, M. R. C., Sanatorium, Miss.; Captain A. J. Pullen, M. R. C., Fondulac, Wis.; Captain L. C. Pawelek, M. C., Texas N. G., Houston, Texas; Captain W. F. Smith, M. C., Indiana N. G., Indianapolis, Ind.

The following officers took the advanced course and have been qualified as flight surgeons: Lt. Col. Serge Androp, Med. Res., Gallipolis, Ohio; Major N. N. Anderson, M. R. C., Woodbine, Iowa; Major Granbow Thomson von Golditz, M. R. C., Evanston, Illinois; First Lieutenant A. J. Herbelsheimer, M. R. C., Minneapolis, Minnesota; Captain E. E. Langley, Washington, N. G., Spokane, Washington.

The following officer of the Sanitary Reserve Corps reported for two weeks training in the progress of physiology of aviation: Major Charles W. Greene, San. Res., Columbia, Missouri.

This class, which comprised officers from every section of the country, is the largest Reserve and National Guard class which has ever passed through the school. The course of instruction was entirely professional and consisted of lectures, practical work at the school and clinics in New York City. The subjects taken up in the preliminary course were ophthalmology and otology, cardiology and neuropsychiatry. In the advanced course the same subjects were taken up, plus physiology, psychology and administration.

SOCIETY NEWS

Dallas County Medical Society met in special session June 24, in the auditorium of the Medical Arts Building, with about 30 members present.

Mr. McAllister addressed the society and stated the business of the meeting by explaining a plan for the organization of a society composed of doctors and dentists, for the purpose of financing patients not able to finance themselves. A committee composed of Doctors Edward White, R. H. Milwee and M. S. Seely was appointed to investigate this matter, and report to the county society.

Dr. Geo. L. Carlisle presented a publicity plan which he contemplates presenting before the regular meeting of the county society.

Dallas County Medical Society met in regular session on the lawn of the home of Dr. W. D. Jones, June 25, at 8:00 p. m.

Dr. Otis Johnson from Chattanooga and the Hamilton County (Tennessee) Medical Society, and Dr. S. C. Richardson from Eastland County Medical Society, were elected to membership on transfer. Doctors J. Shirley Sweeney and Clara Genevieve Shea were elected to membership on application.

The regular scientific program was dispensed with for the evening. Dr. D. R. Venable of Fort Worth, was present and made a brief address, stating that the office of the state secretary will coöperate with the Dallas County Medical Society in every way possible, in arranging for the meetings of the Southern Medical Association and the American Medical Association, which are to be held in Dallas.

Mr. Charles Saville, secretary of the Dallas Chamber of Commerce, was called upon by the president, and made a short talk congratulating the society on securing the American Medical Association meeting for Dallas. Dr. H. Leslie Moore, chairman of the arrangement committee for the Southern Medical Association, stated that their committee have already reserved 1,600 rooms in different hotels in Dallas for guests of this association, and that these rooms would accommodate 3,200 people. He was informed by Mr. Black of the Chamber of Commerce, that there were 17,000 rooms in Dallas which could be secured if needed. All the meetings of the scientific sections of the Association will be housed in one building, the First Baptist Church.

Dr. Geo. L. Carlisle then presented plans for a publicity campaign in the newspapers. These plans were discussed by Doctors Rosser, Marchman and Dean. After some discussion, a motion was carried that a contract be drawn up by the committee, and presented to members of the society for the purpose of securing their donations to this fund.

Dr. E. H. Cary, in a short talk, told how the American Medical Association meeting was secured, and outlined some methods of procedure in taking care of the same.

Dr. D. W. Carter, Jr., read the following resolutions on the death of Dr Ralph Spence:

Whereas, in the death of Dr. Ralph C. Spence the Dallas County Medical Society has lost an honored and valuable member, esteemed alike for his personal character and professional attainments; therefore be it

Resolved, that the Dallas County Medical Society hereby acknowledges its loss and expresses the deepest sympathy to the bereaved family; and be it further

Resolved, that a copy of these resolutions be sent to the mother of the deceased, a copy be published in the *Dallas Medical Journal*, and be placed in the minutes of this meeting.

Gonzales County Medical Society met at Nixon, July 18. A very interesting scientific program was enjoyed and a sumptuous dinner was served the members of the society and their visitors.

Tarrant County Medical Society met in joint session with the Woman's Auxiliary, July 7, at the Glen Garden Country Club. After an old-fashioned barbecue dinner, some repaired to the golf links for a few holes before darkness overtook them, while the majority participated in the dancing at the club room. Cahoon's orchestra furnished the music and each dance seemed to be enjoyed more than the preceding one. The bridge tables also proved quite popular and the entertainment as a whole was voted a very enjoyable one by the more than 250 who attended. Mrs. T. M. Jeter, vice-president of the Auxiliary, was in charge, assisted by a committee composed of Mrs. Edwin Davis, chairman, and Mesdames Will Horn, Frank Beall and A. L. Roberts.

Tarrant County Medical Society met July 21, on the lawn of the Baptist Hospital, the society being the guests of the hospital management. Some 50 members were present.

Dr. W. C. Carroll of Dallas, presented his paper on "Diagnosis and Treatment of Tuberculosis of the Bones and Joints," which was illustrated with interesting slides. The paper was freely discussed by Doctors I. C. Chase, Jack Daly, Chas F. Clayton and E. P. Hall. Dr. Carroll closed the discussion.

Dr. Clayton announced the death of Dr. Bacon Saunders and appointed the following committee to draft appropriate resolutions to be presented to the society at the next meeting, and a copy sent to the family: Doctors F. D. Boyd, W. R. Thompson and I. C. Chase.

A communication was read from the Dallas-Fort Worth Veterinary Society with reference to the rabies situation in Fort Worth and vicinity. The president appointed Doctors R. H. Gough, T. C. Terrell and Jack Daily.

The transfer of Dr. F. L. Snyder from the Washtenaw County Medical Society of Michigan, was announced.

Dr. Martin, the new city health officer, was introduced and was asked to help the society in drafting an ordinance covering a report of communicable diseases and other health matters. A committee to work with Dr. Martin in this matter was appointed as follows: Doctors E. G. Schwarz, M. E. Gilmore and A. W. Montague.

The society adjourned, following which refreshments were served.

Van Zandt County Medical Society met at Canton, July 3. Dr. Felix V. Bryant presided, Dr. D. Leon Sanders being the secretary. The following resolutions were adopted by the society:

"*Whereas*, the Texas State Medical Association, in general session, has amended its rules so that legally qualified physicians and surgeons of this state may carry their professional cards in the public press; therefore be it

Resolved, that the Van Zandt County Medical Society adopt and approve the ruling of the State Medical Association, and that we so advise our membership.

M. L. Cox, M. D.,
B. B. Brandon, M. D.,
Committee."

A motion was carried that the society not convene during the month of August, owing to the fact that many of the members will be away from home.

Southwest Texas District Medical Society met at Kerrville, July 27-28. President Dr. W. E. Nesbit of San Antonio, presided; Dr. L. J. Manhoff of San Antonio, being the secretary. The meeting opened at 10 a. m. at the Schreiner Institute Auditorium. The following scientific program was rendered: "Address of Welcome," Dr. S. E. Thompson, Kerrville; "Pathological Classification of Pulmonary Tuberculosis," Dr. J. J. Klein, Legion; "Practical Consideration from a Clinical Standpoint of Laryngeal Tuberculosis," Dr. Wm. H. Woods, Legion; "Pulmonary Tuberculosis Complicated by Syphilis, with Report of Twenty Cases," Dr. Geo. H. Garrett, Legion; "Observations on the Pneumothorax Treatment of Pulmonary Tuberculosis," Dr. Alvis E. Greer, Houston; "The Diagnosis and Treatment of Peptic Ulcer, from the Standpoint of the Internist," Dr. Will S. Horn, Fort Worth; "The Need of Closer Coöperation between Internist and Surgeon in the Treatment of Duodenal Ulcer," Dr. W. B. Russ, San Antonio; "The Treatment of Systemic Infection by the Intravenous Use of Mercurochrome," Dr. Jas. H. Agnew, Houston; "Gastric Neuroses, with Case Reports," Dr. Titus H. Harris, Galveston; "Dietetics," Dr. E. V. DePew, San Antonio; "The Management of the Lesser Obstructions About the Vesical Neck," Dr. Rex R. Ross, San Antonio; "The Significance of Abdominal Pain," Dr. A. Philo Howard, Houston; "Obesity, Its Etiology and Treatment," Dr. Geo. H. Underwood, Dallas; "The Treatment of Myxedema," Dr. A. C. Scott, Jr., Temple; "Report on Cases of Poliomyelitis, Diagnosis and Treatment," Dr. Thos. Dorbandt, San Antonio; "Zinc Ionization in the Treatment of Suppurating Cavities." Dr. O. H. Judkins, San Antonio; "Why Is the Medical Practice Act Not Enforced in Texas?" Dr. N. A. Poth, Seguin; "Congenital Anomalies of the Esophagus," Doctors Geo. H. Holmes and W. T. Dawe, Gonzales.

The Woman's Auxiliary met in conjunction with this meeting and enjoyed a very interesting program. A luncheon for visiting ladies was served at the St. Charles Hotel, which was followed by an auto ride through the picturesque mountains around Kerrville and along the beautiful Guadalupe river. Concerning the social features, an eye witness to the festivities reports upon them as follows:

"The barbecue given by Dr. S. E. Thompson at his ranch house was reached by a winding trail that may be common to the hill country, but to city doctors, unaccustomed to ruts and sudden steep ascents and descents, it called forth all the restraints of temper to keep from using language not usually associated with the dignified medical profession. The trip was well worth while. The ranch house in its rustic setting, furnished with rustic furniture and trimmings, harmonizing to the last detail with its immense stone fire-place, made a setting that brought forth a chorus of commending approval, especially from the feminine members. Referring to the sumptuous repast, there must have been a tremendous mortality among the chickens in that vicinity that day, the barbecued meat was delicious, all the 'trimmings' were present, and the constant urgings of a generous host to have just a little more must have been inducive to many cases of gastroptosis.

"The dance at the Country Club also remains in the memory of those attending. A gem of a building on a hill, with spacious galleries, a perfect dance floor, good music, winding walks with their peculiar appeal to the younger set between dances, and a good natured, jolly crowd, kept nearly all attending on the spot until the last notes of the music died away."

The Seventh District Medical Society met at Austin, Thursday, July 16, at the Stephen F. Austin Hotel. The president, Dr. Summerfield Taylor, of Austin, presided, and Dr. Hugh S. McKeown of Austin, was the secretary. The following scientific program was rendered: "Address of Welcome," Dr. Summerfield Taylor, Austin; "Circulatory Disturbances and Their Treatment in Lobar Pneumonia," Dr. T. B. Taylor, Bastrop, discussed by Dr. W. E. McCaleb of Austin; "Dietetics," Dr. E. V. DePew, San Antonio, discussed by Dr. F C. Gregg of Austin; "Enforcement of Medical Practice Act," Dr. Joe Gilbert, Austin; "Pyelitis," Dr. Chas. Simpson, Temple, discussed by Dr. G. M. Decherd of Austin; "A Milk-bone Typhoid Epidemic," Dr. Z. T. Martin, Austin, discussed by Dr. J. A. Little of Austin; "Four Cases From Which We Might Learn Something," Dr. M. H. Boerner, Austin; "Symptoms of Operable Rectal Cancer," Dr. Curtice Rosser, Dallas, discussed by Dr. J. C. Thomas of Austin; "Lympho-Sarcoma—Presentation of Cases," Dr. J. J. Brady, Austin, discussed by Dr. Henry Cox of Groesbeck; "Oesophageal Pouch in the Lower One-third,' Dr. W. E. Watt, Austin; "Foreign Body in Colon," Dr. Dalton Richardson, Austin.

At 7 p. m. a chicken barbecue and swimming party was enjoyed by the doctors and their wives and guests at the famous Barton Springs.

The Woman's Auxiliary met in conjunction with the meeting of the Seventh District Society and enjoyed a very delightful program. The visitors were taken on an automobile ride over the city.

The next meeting of the society will be at Austin, in February, 1926.

The Twelfth District Medical Society met at Cleburne, July 14-15, at the Liberty Hotel. The president, Dr. W. T. Shell of Corsicana, presided. Dr. Doyle L. Eastland of Waco, was the secretary. The

section officers were as follows: *Section on Medicine*: Dr. J. Wilson David, Corsicana, chairman; Dr. A. E. Moon, Temple, secretary; *Section on Obstetrics*: Dr. M. T. Knox, Cleburne, chairman; Dr. Howard Smith, Marlin, secretary; *Section on Surgery*: Dr. Chas. Garrett, Hillsboro, chairman; Dr. C. E. Collins, Waco, secretary.

The meeting opened with a general session at which the welcome address was delivered by Honorable Finis Johnson, who was introduced by Mayor Goldsmith of Cleburne. The welcome address on behalf of the local doctors was delivered by Dr. W. P. Hall of Cleburne and the response was given by the president, Dr. W. T. Shell.

Following the general session the scientific program was taken up:

"Fungus Infections of the Skin," Dr. J. Bedford Shelmire, Dallas; "A Plea for the Prevention of Rheumatic Heart Disease," Dr. Geo. L. Carlisle, Dallas, discussed by Dr. N. D. Buie of Marlin; "Back Ache—A Few Observations of This Condition in Men," Dr. Joseph F. McVeigh, Fort Worth, discussed by Dr. W. T. Shell of Corsicana; "The Non-Surgical Treatment of Hemorrhoids," Dr. M. B. Saunders, Waco; "Four Cases from Which We Might Learn Something," Dr. M. H. Boerner, Austin; "Pyelitis Complicating Pregnancy," Dr. D. B. Alexander, Waco, discussed by Drs. H. R. Dudgeon of Waco, and J. H. Mitchell of Kosse; "Demonstration of Some Original Operative Technique," Dr. Willard Cooke, Galveston, discussed by Drs. W. L. Crosthwait and H. M. Lanham of Waco; "Cervical Erosions With Some Suggestions as to Treatment," Dr. Chas. H. McCollum, Fort Worth, discussed by Drs. M. P. McElhannon of Belton, and L. E. Kelton of Corsicana; "Treatment of Functional Dysmenorrhea," Dr. C. V. Ezell, Cleburne, discussed by Drs. H. A. Mahaffey of Hillsboro, and C. C. Cate of Morgan; "Importance of the Tonometer in the Diagnosis of Simple Glaucoma," Dr. J. M. Woodson, Temple; "Fractures of the Skull," Dr. W. L. Crosthwait; "Kidney Decapsulation for Anuria of Mercury Poisoning," Dr. E. H. Newton, Corsicana; "Prolapse of the Uterus," Dr. J. S. McCelvey, Temple; "Intestinal Obstruction," Dr. Howard Smith, Marlin; "Treatment of Hemorrhoids," Dr. W. R. Newton, Cameron; "Carcinoma of the Esophagus," Dr. Chas. E. Collins, Waco; "Mobilization of Ankylosed Joints," Dr. Ben L. Schoolfield; "Foreign Bodies in Esophagus and Lungs," Dr. Horace Ainesworth, Waco; "Surgical Aspects of Myxedema," Dr. Arthur C. Scott, Jr., Temple; "A Case of Fracture of the Urethra," Dr. Chas. A. Garrett, Hillsboro; "Stricture of the Urethra," Dr. A. C. Hornbeck, Marlin.

The Woman's Auxiliary was well represented and had an enthusiastic meeting at the Anglin Street Presbyterian Church. Many of the doctors enjoyed a round or two of golf at the Country Club before the banquet at 8:00 o'clock at the Liberty Hotel. This banquet was a very enjoyable occasion and the attendance by the doctors and their wives and guests was beyond all expectations.

Dr. W. T. Ball of Cleburne was toastmaster. Speeches were made by Doctors C. M. Rosser, A. C. Scott, Sr., W. A. Wood, Joe Dildy and C. W. Davis. A delightful musical program was also rendered during the course of the banquet, including a vocal solo by Mrs. M. Dennis, a piano solo by Miss Ruth Edgar, and violin selections by Miss Justice, accompanied on the piano by Miss Winnie Coffin.

This meeting of the society was the best attended of any meeting held outside of Waco, over 100 doctors being in attendance.

The next meeting of the society will be held at Corsicana, January 12-13, 1926.

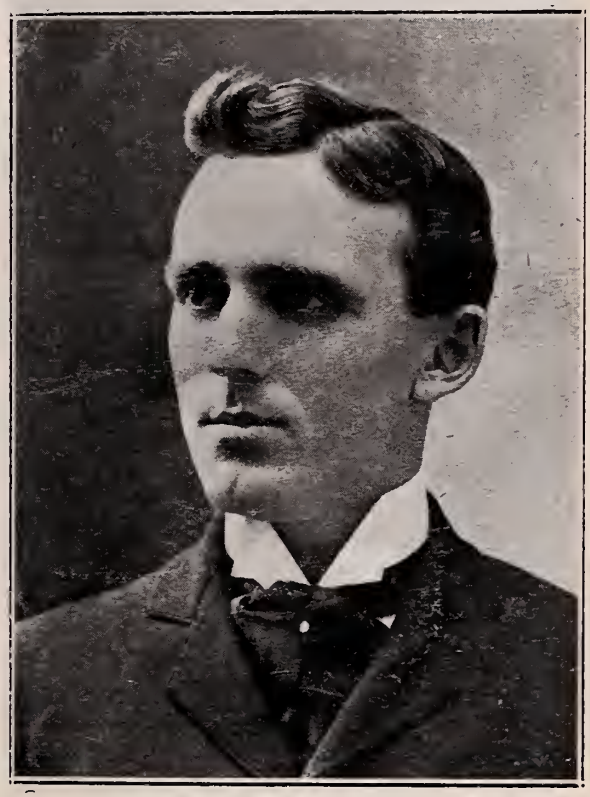
CHANGES OF ADDRESS.

Dr. J. E. Sparks, from Houston to San Antonio.
Dr. Oscar Huff, from Brady to Mason.
Dr. R. M. Munroe, from Milford to Temple.
Dr. N. W. Gustine, from Shepherd to Bannister.
Dr. John Catto, from Dallas to Waco.
Dr. H. Ramming, from Breckenridge to Harlingen.

DEATHS

Dr. Harry Fitzelon Blailock of Waco, died at Marlin, June 12, 1925, of cerebral edema.

Dr. Blailock had been in ill health for a number of years. He was born at Carthage, Mississippi, in 1875. When he was eight years old his parents moved to McGregor, Texas. His father was Dr. W. R. Blailock. After completing his public school education, Dr. Blailock graduated from the University of Texas, at Austin, in 1896, and received his degree in medicine from the Medical Department of the



DR. HARRY F. BLAILOCK.

University of Texas, at Galveston, in 1900. He practiced at McGregor, Texas, until 1918 when he entered the Medical Corps of the Army with the rank of captain. Upon his return from the army he moved to Waco, where he practiced up to the time that his ill health made practice impossible. He has long been a faithful and active member of the McLennan County Medical Society and the State and American Medical Associations. He was held in high esteem by his professional brethren and leaves many warm friends to mourn his death. He is survived by his wife, a daughter, Zelda Bess, of Austin; a son, William Russell, of Cleveland, Ohio; by his mother, Mrs. W. R. Blailock, and by two sisters, Mrs. H. F. Connally, of Waco, Texas, and Mrs. J. S. Abbott of Washington, D. C.

Dr. Bacon Saunders of Fort Worth, Texas, died at Colorado Springs, Colorado, July 15, 1925, after an illness of over 10 months' duration.

Dr. Saunders was born at Bowling Green, Kentucky, January 5, 1855. His father, Dr. John Smith Saunders, of Kentucky, moved to Dallas when Dr. Bacon Saunders was two years old, and after a distinguished service as a surgeon in the Confederate Army on the staff of General Gano, moved to Bonham in 1869 where he continued his medical practice and was a leader in medical organization until the time of his death.

Dr. Saunders attended a private school at Dallas, and when his family moved to Bonham, continued his education at Tarleton College at that place, graduating from that institution with the degree of Bachelor of Arts in 1873, when but 18 years of age. The following two years he taught school at Bonham, employing his spare time in the study of medicine under the tutelage of his distinguished father. He then

DR. BACON SAUNDERS.

entered the University of Louisville School of Medicine from which he received his M. D. degree in 1877, being the honor man in a class of 190 members. Even in the medical college he showed unusual aptitude in operative surgery and thus early were the lines of his destiny clearly marked. Returning to Bonham he practiced in partnership with his father for a number of years, achieving a fame far beyond the confines of his own community.

In January, 1893, he moved to Fort Worth, where for a time he was associated with the late Dr. W. A. Adams and Dr. F. F. Thompson. From this time he limited his practice exclusively to surgery. Dr. Saunders was one of the founders of the Medical Department of Fort Worth University and was for many years the dean of that school, which afterward became the Medical Department of Texas Christian University and later was discontinued. After the close of this school, he became professor of surgery in the Medical Department of Baylor University, Dallas. He was one of the charter members and founders of the Texas Surgical Society, membership in which is limited to those whose work is 100 per cent surgery and whose accomplishments in that field are noteworthy, and was its second president. He was, also, admitted to Fellowship in the American College of Surgeons soon after that organization was established. He had been, at the time of his death, chief surgeon of the Fort Worth and Denver City Railway for 25 years, and was also chief surgeon for the Wichita Valley railroad. He was, for a long time, the local surgeon of the Texas and Pacific, the International and Great Northern, the St. Louis Southwestern and the Gulf, Colorado and Santa Fe railroads.

He was one of the founders of the North Texas Medical Association and served a term as president of that body. He was, at one time, Vice-President of the International Surgeons' Association and was the twenty-ninth president of the State Medical Association of Texas (1897-98) and of the Southern Surgical and Gynecological Association. He was a trustee and a member of the executive board of the Texas Christian University and chairman of the board of trustees of Brite College of Bible. At the Diamond Jubilee celebration of Baylor University in June, 1919, the degree of LL.D. was conferred upon him. He had long been a prominent member of the First Christian Church, of which he was an elder. He was a director of the Farmers and Mechanics National Bank of Fort Worth.

He was married on October 31, 1877, to Miss Ida Caldwell of Bonham, Texas. To this union were born two children, Dr. Roy F. Saunders, who practiced in partnership with his father, and Mrs. Charles B. Reimers, both of Fort Worth.

One of his professional brethren, who has known Dr. Bacon Saunders long and intimately, eulogized him as follows, and we would reverently join in this encomium:

"He was a man of wonderful physique, great endurance and fixedness of purpose; of such honor and integrity that to know him was to believe in him; of such keenness of intellect and soundness of judgment as to make him a leader of men; of such purity of character and nobility of professional ideals as to have enabled him to have markedly influenced the professional ideals of his generation. He was a man of national reputation in the field of surgery; the dean of the medical profession of his state and of his city.

"In his passing goes one of the noblest characters, one of the most useful lives and one of the greatest personalities of his time. The people who rise up in gratitude for life and health restored by him are a veritable cloud of witnesses, the most wonderful memorial that can be erected to commemorate the life of any man."

BOOK NOTES

A Textbook of Materia Medica for Nurses. By A. L. Muirhead, M. D. Late Professor of Pharmacology, Creighton Medical College, Omaha, Nebraska and Edith P. Brodie, A. B., R. N., Instructor in Materia Medica and Therapeutics, Washington University School of Nursing, St. Louis, Missouri. Second Edition, Revised. 12mo., cloth; 190 pages; illustrated. Price $2.00 net. C. V. Mosby Company, St. Louis, U. S. A.

This little volume on Materia Medica for Nurses is a very timely discussion of a subject which is, as

the authors point out, frequently sadly neglected in the nurses course of training. Some nurses will be so fascinated by the study they have made in their training course that they will supplement this study by reading text-books written for doctors, but this will occur only occasionally. The pertinent facts about the principal drugs used in present day medicine are given in a very brief but entertaining manner and the illustrations borrowed from standard text-books on physiology and pharmacology are excellent. The volume is well adapted to the purpose for which it was written.

Clinical Medicine for Nurses. By Paul H. Ringer, A. B., M. D. Chief of Medical Service of the Asheville Mission Hospital, Asheville, N. C.; Member Staff of Biltmore Hospital, Biltmore, N. C. 2nd Revised Edition, 12mo. Cloth, illustrated. 306 pages. Price, $2.50 net. F. A. Davis Company, Publishers, Philadelphia, 1925.

The purpose of this book is stated in the Preface to the first edition, as follows: "The following chapters represent the substance of lectures on medical diseases that I have delivered for several years at the Asheville Mission Hospital * * * The object of these lectures is to place in concrete form a fairly detailed description of the points in the various diseases that nurses will be expected to observe and interpret, and also to form a basis upon which classroom lessons can be assigned and quizzes held, the teacher amplifying as he sees fit."

The book is very concisely written and should give the nurse a very good general idea of the most common diseases which she is apt to meet in her professional work. Where necessary, a brief anatomical and physiological sketch is given and also a brief sketch of the bacteriology of diseases that are caused by microörganisms. The little volume closes with a glossary containing the more common scientific terms that a nurse should be familiar with.

Common Infections of The Female Urethra and Cervix. By Frank Kidd, M. A., M. Ch. (Cantab.) F. R. C. S. (England) and A. Malcolm Simpson, B. A., M. B., D. P. H. (Cantab,) with additional chapters by George T. Western, M. D. and M. S. Mayou, F. R. C. S. 12mo., cloth; 191 pages; illustrated. Price, $2.50 net. Oxford University Press, American Branch, 35 West 32nd street, New York.

This excellent and much needed treatise on the common infections of the lower female genital tract is the result of long and careful study of this subject by the authors and is the mature product of a rich experience. The text is written in excellent style and presents the author's ideas as to technic in examination and treatment in a clearly understandable form. The optimistic view that the authors take in dealing with this subject is worthy of special notice, and is quite a contrast to the usual lugubrious prognosis given in such cases by the general practitioner who is, alas, too often both temperamentally and technically totally unprepared for such work. There is no disputing the fact that enthusiasm and love for one's work is conducive to the best results. No one can read this book without being impressed with the contagious enthusiasm of the authors.

At times, the authors are inclined to be didactic. For example, they state in their preface that they could find very little literature on the subject of treatment of the infections of the female urethra and cervix except in the book by Norris, whereas we have in mind several other excellent works on this subject. Some of the didactic statements made by the authors are also subject to criticism and are not in line with the experience of others who are qualified to express an opinion on the subject. For example, the following statement occurs, "Adenitis secondary to a pure infection with the gonococcus is almost unknown;" and again, the statement which the authors felt so strongly that they even put it into italics, that, "In dealing with adults it is a complete waste of time to make smears and cultures of the vaginal and vulval secretions, except for a man who is learning his work." While there is a good deal of truth in these statements it is questionable whether they can be taken literally and at their face value. Again, under treatment in chapter two, in giving printed instructions to the patient, the use of tea and coffee is advised together with fruit juices, cocoa, mineral water, etc.; whereas in the experience of many, the use of coffee, while suffering from specific urethritis, has been found very harmful. In mentioning antiseptics for use as douches and also for sterilizing the hands, the proprietary preparation "listerine" is mentioned along with lysol as if it were as efficient as the latter, whereas it is a notorious fact that listerine is not to be compared with lysol, cresol, phenol or most any of the common antiseptics. I do not believe that most genito-urinary surgeons would agree with the statement that "sterilized water is not necessary in making up antiseptic solutions, as the ordinary tap water is usually free from pathogenic bacteria, and if any are present they are killed by the antiseptic." We cannot help wondering if the authors have ever visited a modern treatment plant and seen the gas forming organisms cultured from even guarded sources of water supply. While infection will probably not often result from the use of such water in making up antiseptic solutions, it is such an easy matter to sterilize water by boiling, that it would hardly seem justifiable to lay one's self open to criticism by omitting this point in the technic.

The painstaking care with which signs and symptoms of the disabling venereal diseases are described show the authors to be clinicians of unsusual acumen and ability. Their observations and deductions are drawn from the bedside and hospitals as well as from the laboratories. This book should be interesting not only to genito-urinary surgeons, but to the general practitioner to whose lot still falls the treatment of the majority of these cases.

Selected Medical Papers of Alfred Worcester, containing 18 articles reprinted from the writings of Dr. Alfred Worcester, one article from the writings of Dr. Edward R. Cutler and four sketches by Mr. Russell T. Hyde, with a foreword by Walter P. Bowers. 12 mo., cloth; 339 pages, illustrated. Price, $3.00. The Four Seas Company, Boston, 1925.

The *raison d'etre* of the book is stated in the Foreword as follows: "The purpose of this volume is not only to pay a just tribute to a great physician and give pleasure to Dr. Worcester's friends, but to put in available form material which will be of assistance to those historians who may record the important activities which have made Massachusetts prominent in the medical affairs of this country."

The life of Dr. Worcester is a very interesting one and the short sketch given of his life and attainments enables one to see the sturdy, noble character of this great general practitioner of the "Old School" no more than does a study of the papers that fell from his pen, and which are collected in this volume. All of his writings are permeated with much wholesome counsel which the present day physician may well heed. The distinction between the science of medicine and the art of the practice of medicine is very vividly portrayed in these selected papers. The book is well worth any one's careful perusal.

Fractures and Dislocations. Immediate Management, After-Care, and Convalescent Treatment With Special Reference to the Conservation and Restoration of Function. By Philip D. Wilson, A. B., M. D., F. A. C. S., Instructor in Orthopaedic Surgery, Harvard Medical School and William A. Cochrane, M. B., Ch. B., F. R. C. S. Edin., University Tutor in Clinical Surgery, University of Edinburgh. 8vo., cloth; 789 pages; 978 illustrations. J. B. Lippincott Company, Philadelphia and London, 1925.

It has been said that the study of bones is a dry subject, but this text on fractures and dislocations has been so flavored with the authors' personalities as to display an astonishing amount of vitality. This work is undoubtedly a masterpiece on the subject. Many valuable lessons have been taught by the World War, which proved one of the best schools in traumatic surgery that the world has ever seen. The authors have drawn heavily upon this vast store of information, as can be readily seen in their discussions of debridement and the Carrell-Dakin method of multiple tube irrigation of wounds. The important lesson learned in primary splinting of fractures, especially compound fractures, is also stressed and the fact clearly pointed out that in industrial accidents the same conditions obtain as were found at the front during the late war. Carefully dovetailed into the splendid text are a large number of excellent illustrations, most of which are actual photographs. A well chosen illustration will often give the reader as much information as several pages of text. No small detail seems to have escaped the author's attention. Their directions for all surgical procedures described are clear and complete, from the reduction of an interphalangeal dislocation to the treatment of a compound fracture of the femur.

The type is large and clear, the quality of the paper excellent and the binding durable and attractive. Both the authors and the publishers are deserving of congratulations upon the production of this excellent volume.

Principles of Surgery for Nurses. By M. S. Woolf, M. A., B. Sc., M. R. C. S. (Eng.), L. R. C. P. (Lond.), Instructor in Surgery, and Visiting Surgeon to Out-patients, University of California Hospital, San Francisco; Instructor in Surgery, and Visiting Surgeon, Children's Hospital, San Francisco. 12mo., cloth; 350 pages; illustrated. Price $3.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

The work starts with a brief introductory chapter on the history of medicine and surgery. The author in his list of names to be remembered in the history of surgery makes a misstatement which should be corrected in his next edition, when he states that W. T. G. Morton was the first to demonstrate the use of ether as a general anesthetic in humans, when all who are well informed in medical history know that the credit for this monumental discovery properly belongs to Crawford W. Long of Georgia, whose use of ether anesthesia in operating upon human beings antedated Morton's performance by several years. *Sectionalism is quite stubborn, sometimes, in the face of facts.* The body of the book is divided into 24 chapters, the first 7 chapters dealing with general considerations such as inflammation, special infections, antiseptics, etc., and the remaining chapters dealing with diseases of special regions of the body, such as diseases of the alimentary tract, injuries and diseases of blood vessels, etc. The book is well written and contains many clear and apt illustrations. It will be found very interesting to any one who is interested in the study of the human body and the morbid processes that affect it. The student nurse will find in this volume an excellent text-book.

Clinical Therapeutics. By Alfred Martinet, M. D., Paris, France, with the collaboration of Drs. Defosses, G. Laurens, Leon Meunier, Lomon, Lutier, Martingay, Mougeot, Saint-Cene, Segard and Terson. Authorized English Translation from the Second Revised and Enlarged Edition by Louis T. de M. Sajous, B. S., M. D., Associate Professor of Experimental Pharmacology, School of Medicine, Temple University; Instructor in Endocrinology, Graduate Medical School, University of Pennsylvania, Philadelphia. In two octavo volumes; 1,800 pages; 322 engravings. Price, $16.00 net. F. A. Davis Company, Publishers, Philadelphia, Pa., 1925.

Dr. Sajous is to be commended for his translation of this remarkable work into the English language, thus rendering it available to many students of medicine who would be unable to study it in its original form. The work is divided into four parts, two parts being incorporated in each volume. Part I is entitled "Therapeutic Agents," and the main subdivisions of this part are as follows: I, "Drugs Acting Specifically on the Circulatory System;" II, "Drugs Acting on the Urinary Tract;" III, "Drugs Acting on the Respiratory System;" IV, "Drugs Acting on the Digestive System;" V, "Drugs Acting on the Nervous System;" VI, "Alteratives;" VII, "Organotherapeutic Agents." Part II is entitled "Commonly Employed Therapeutic Procedures," and the main subdivisions are: I, "Procedures Relating to the Skin Surface;" II, "Thermal Applications;" III, "Subcutaneous Procedures;" IV, "Subcutaneous and Intramuscular Injections;" V, "Procedures Relating to the Circulation;" VI, "Procedures Relating to the Respiratory Tract;" VII, "Procedures Relating to the Urinary Tract;" VIII, "Procedures Relating to the Digestive Tract;" IX, "Procedures Relating to the Nervous System;" X, "Miscellaneous Therapeutic Procedures."

Part III concerns itself with the treatment of symptoms, while Part IV takes up the treatment of diseases.

Dr. Martinet states in his introduction that it was his desire to write a work on therapeutics," conforming to the actualities of practice and meeting clinical requirements." In this he has admirably succeded. He also states in his introduction, "Let the reader not expect to find therein an all-embracing and impassive therapeutic catalog of all views, of whatever sort, held in ancient and modern times regarding the art of curing disease. The time for such exercises in compilatory prose composition is past. My co-workers and I have resolutely made our selections, trimmed off the dead branches and aged off-shoots, and suppressed exuberant foliations, hoping thus, by concentrating the sap, to rejuvenate the parent stem and make the tree more vigorous."

The work will be found remarkably complete and up to date. The latest methods of treatment, including the various mechanical and physical means of treatment and the newest electrical modalities are accurately described. It is of great interest to the student of medicine to obtain the views of eminent foreign clinicians and the effect of such study is unquestionably broadening.

The binding is handsome and appears to be very durable. The paper and typography are both excellent and the many illustrations leave little to be desired.

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Advertising the Medical Profession.—Last month we discussed the law enforcement campaign, then just getting under good headway. It will be remembered that the State Medical Association is participating in this movement upon the earnest and repeated request of the State Board of Medical Examiners, and because the Medical Practice Act itself is a child of the Association, as originally passed and later amended. The interest of the medical profession in this law is incident to the fact that through it alone can the public be protected against ignorance in the sick room, with the attendant damage to life and health, the which even the physician with all of his intimate experience in such matters, can hardly appreciate.

We are pleased to report at this time that none of the impetus achieved in the beginning of this campaign has been lost; indeed, there has been a pleasing increase in vigor of action, and a constantly increasing list of successes with a constant decrease in the number of failures. It has been now determined, definitely and beyond a doubt, that courts and juries are willing to convict and that public sentiment is overwhelmingly in favor of enforcing this most beneficial law. As pointed out before, the cause of failure has been largely the indifference of the public, and the prevailing idea among enforcement officers and the courts, that the whole affair was a contest between schools of medicine, and that no matter how worthy the law may be its enforcement was impracticable. In addition to these handicaps, indictments have frequently been insufficient and prosecution without force and without proper conception of what the State is endeavoring to do.

Last year the State Medical Association conducted a determined and forceful campaign of education on the general subject of the practice of medicine, with the idea that should the lay public once understand the situation the professional life of the quack and the medical imposter would be short, and scientific medicine would be in a position to render to the public such service as the public has never dreamed of. Those of us who had been observing this movement closely were of the opinion that a safe foundation had been laid for future effort, which was about all that could be hoped for in a single season. It seems that our confidence is about to be justified. As the law enforcement campaign progresses it is found that progress is increasingly easy, particularly where the seed of publicity was planted last year. Not the least encouraging item in this connection is the response of our own members. Where our previous publicity plans were looked upon with suspicion, frequently we find the profession most ready to engage in further publicity endeavors in support of the law enforcement campaign, and where this is done, almost invariably there is success in the prosecution of violators of the Medical Practice Act. Verily, the proof of the pudding is in chewing the bag.

The relationship of the medical profession to the lay press has long been strained. On the one hand we have suspected the press of

a willingness to participate in crime for the profit, and on the other, the press has felt that the medical profession was posing as an institution too holy to join in the universal advertising campaigns of modern times. As a profession, we have resented the appearance in the press of misleading quack and patent medicine advertisements, which have frequently been not only offensive from an aesthetic standpoint, but most potent for harm. The press has pointed to the desire of the physician for free advertising, and has believed him to be insincere when he protested. The privilege of inserting professional cards in the lay press, granted by the principles of medical ethics, has more often than otherwise been ignored. In most communities it is still deemed unprofessional to allow any sort of newspaper publicity, paid or free. The layman, not appreciating the need of our splendid code of professional ethics, is slow to get the difference between advertising a commodity and advertising personal skill. In the one instance it will be readily appreciated that the buyer can well afford to beware, whereas in the other instance the buyer has no opportunity in the world to determine in advance what it is he is purchasing. There is no easy way to decide between the individual who claims great skill for himself and does not have it and the one who claims to be superior in his field of endeavor and is. We have justly concluded, therefore, that there is no feasible and honorable way to advertise the individual in the practice of medicine. This conclusion seemed to definitely outlaw advertising.

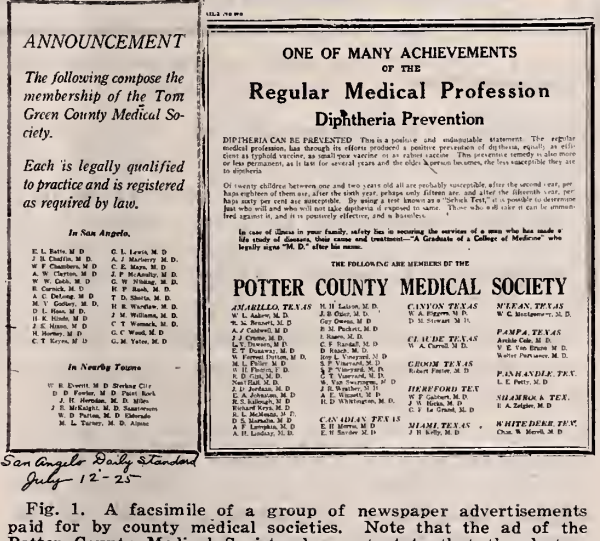
Then came the conception that the profession might advertise itself as a whole and not the individual engaged in practice. In other words, physicians might join in paying for the distribution to the public of knowledge concerning scientific medicine, and extol the advantages to accrue from the employment of those who are informed, and the harm to come from employing those who are not informed. Objection to this idea was immediate and emphatic, but based rather on the discredit that had come to this character of advertising through its practice by the faker and the quack, than on principle. And so the matter stood for some years, until it became quite evident that the medical profession owed it not so much to itself as to the public, to insure the distribution of needed information. The quack and the practitioner of weird and peculiar systems of medicine were administering their propaganda to the people in large doses, all of which was being paid for as advertising. The people were being misinformed and misled. It would not do to accuse the press of being contributors to the injury of their readers through this sort of propaganda, and there seemed to be no feasible method of placing the facts before the public through contributed articles. Our experience in advertising our publicity campaign last year led inevitably to the conclusion that if we are to be successful in getting the people on the right track as pertains to the practice of medicine, we must approach them through the medium of the paid advertisement, coupled with such scientific articles as the press can find room to publish. The people expect it and the newspapers expect it.

With this thought in mind, the Executive Council of the State Medical Association authorized a modified plan of publicity which was, notwithstanding, a radical departure from the conservative policies of the past in regard to such matters. The idea is very simple—to permit, and encourage, the advertising of the medical profession as a whole, its accomplishments in the past, competency for the present and its hopes for the future. It does not authorize publicity for the individual, except to the extent that the individual is shown to be a member of his county medical society and authorized by law to practice medicine. The right of the individual to inform the public through the medium of paid advertising, of the fact that he is practicing medicine, the kind of medicine he is practicing and where he may be found, is undisturbed, and is still within the control of the local group. It was felt that the press would react most kindly to the decision on the part of the medical profession to help pay the cost of distributing such desirable information, and would be inclined, in many instances, to deny advertising space to the quack; cer-

tainly to the unlicensed quack. President Dr. Rosser took this thought direct to the Press Association of the State, in an able and logical discussion of the subject. This contribution was received with astonishment and incredulity, in about equal proportions, and the comments have been variously of approval and disapproval, praise and sarcasm. But many of the papers had been won over, and many doctors had come to see the necessity of the new order of things. And for fear that we may be misunderstood, let us repeat, no principle of medical ethics as it applies to publicity for the individual will be violated in the new policy of publicity as applied to the medical profession in its connection with the health of the public.

The Roster Publicity Plan.—Having decided that it is right and proper to approach the public in the interest of scientific medicine and the medical profession, through the medium of paid advertisements, it remains but to decide the form and character of the ads, and what phase of our great problem shall be stressed at any particular time. Just now, when the public is being told that it is dangerous to patronize ignorant practitioners, and that the only known means at hand for determining who are qualified is the Medical Practice Act of this State, it would seem a good plan to say something about this law, its necessity, fairness and comprehensiveness, and how the public may know who of those offering their services have stood the test prescribed therein. At other times, other subjects may well be discussed, such as diphtheria and the respiratory diseases in general, during the winter, and typhoid and malaria in the summer. Any subject which will give an opportunity to impress upon the reader some helpful fact peculiar to scientific medicine, will do. Then should follow the list of the county society membership, with the statement that each member has been licensed to practice medicine in the State of Texas. The presumption is that each individual who has stood this test is at least basically qualified to practice medicine. There should be no contention as to the actual skill and ability of any or all of those mentioned. In other words, as it is not considered genteel and ethical to stress the personal ability of the individual, so it cannot be proper to emphasize the same qualities in the group. It is quite sufficient to impress upon the reading public that those being advertised have stood the test, and, by inference, are ethical practitioners of medicine. There should be nothing to lead to the inference that all practitioners of medicine whose names are not included are ignorant or lacking in any number of particulars. The conclusion will be, of course, that there are such, which should lead to a close scrutiny of the qualifications of the individual whose name is not included in the list. It is not an effort to boycott or exclude from consideration, those physicians who are not members of our organization. Indeed, there are many qualified practitioners of medicine who are not members but who are in every particular qualified to become members, and there are honorable practitioners of the so-called minor schools who are authorized by law to practice and who are believed to be capable, but who, because of their sectarian practices may not become members of our county societies.

An important matter to be borne in mind is, that it is exceedingly hazardous and of questionable value to participate in a newspaper controversy with the quack. For the present moment, at least, our executive coun-



ANNOUNCEMENT

The following compose the membership of the Tom Green County Medical Society.

Each is legally qualified to practice and is registered as required by law.

In San Angelo.

E. L. Betts, M. D. — C. L. Lewis, M. D.
J. B. Chaffin, M. D. — A. J. McAlmony, M. D.
W. F. Chambers, M. D. — C. E. Mays, M. D.
A. W. Clayton, M. D. — J. P. McAnally, M. D.
W. W. Cobb, M. D. — G. W. Nibling, M. D.
R. Carnick, M. D. — H. F. Rash, M. D.
A. C. DeLong, M. D. — T. D. Shorts, M. D.
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H. Horton, M. D. — G. M. Yates, M. D.
C. T. Keyes, M. D.

In Nearby Towns

W. B. Everett, M. D. Brownwood
D. D. Fowler, M. D. Paint Rock
J. H. Herndon, M. D. Miles
J. B. McKnight, M. D. Sonora
W. D. Patton, M. D. Eldorado
M. L. Turner, M. D. Alpine

ONE OF MANY ACHIEVEMENTS
OF THE
Regular Medical Profession
Diphtheria Prevention

DIPHTHERIA CAN BE PREVENTED. This is a positive and indisputable statement. The regular medical profession, has through its efforts produced a positive prevention of diphtheria, equally as efficient as typhoid vaccine, as small pox vaccine or as rabies vaccine. This preventive remedy is also more or less permanent, as it lasts for several years and the older a person becomes, the less susceptible they are to diphtheria.

Of twenty children between one and two years old all are probably susceptible, after the second year, perhaps eighteen of them are, after the sixth year, perhaps only fifteen are, and after the fifteenth year, perhaps sixty per cent are susceptible. By using a test known as a "Schick Test," it is possible to determine just who will and who will not take diphteria if exposed to same. Those who will take it can be immunized against it, and it is positively effective, and is harmless.

In case of illness in your family, safety lies in securing the services of a man who has made a life study of diseases, their cause and treatment—"A Graduate of a College of Medicine" who legally signs "M. D." after his name.

THE FOLLOWING ARE MEMBERS OF THE

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W. M. Bennett, M. D.
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L. T. Duncan, M. D.
W. H. Fitzgerald, M. D.
S. Forest Dorian, M. D.
M. L. Fuller, M. D.
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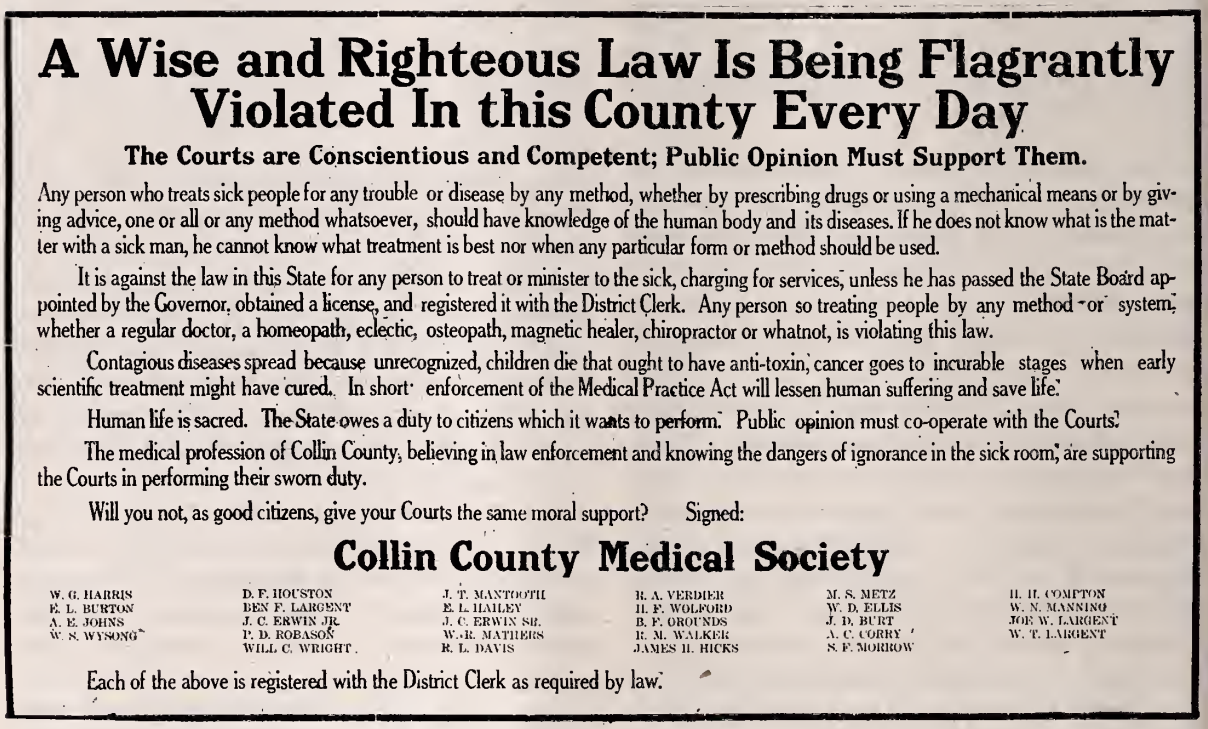
San Angelo Daily Standard
July 12-25

Fig. 1. A facsimile of a group of newspaper advertisements paid for by county medical societies. Note that the ad of the Potter County Medical Society does not state that the doctors whose names appear in their roster are licensed practitioners of medicine. This statement is important and should appear in such ads.

cil is rather insistent that this be not done. The public is inclined to look upon the effort to enforce the Medical Practice Act as a contest between so-called schools of medicine, which it distinctly is not, of course. A controversy with an advertising follower of some cult or sect who is being prosecuted for violating the Medical Practice Act, lends dignity to his cause and discredits our cause. There may be circumstances from time to time where this will not be true, and at other times and under other conditions it may be advisable to fight such a battle through the public press, but that is for discussion at another time. It is well to remember, in this connection, the statement of Dr. Oliver Wendell Holmes, that "Controversy equalizes wise men and fools, and fools know it."

We are reproducing here three advertisements of the sort under discussion, which have recently appeared. (Figures 1 and 2.) They differ somewhat, and from them the great variety of possibilities can be readily seen. One of these ads fails in one important particular. It does not carry the statement that the members are authorized by law to practice medicine in this State. There may be room for criticism in any copy of this sort put out, and that phase of the problem will receive careful consideration. No doubt, sooner or later, model forms and model copy will be submitted to county societies for consideration in this connection, but for the present county societies are choosing their own copy and proceeding in their own way to carry out this plan, with the advice and consent of the state publicity committee, and the councilors, of course.

As stated last month, individuals about to be tried for violating the Medical Practice Act frequently resort to the expedient of running full page ads in the local newspapers, filled with specious argument and misleading statements, which practice it was felt had a great deal to do with influencing the prospective jurors in their respective cases. We have before called attention, also, to the power of display advertising of this same sort, recommending to the public this, that or the other group of practitioners of peculiar methods. We have said here that one of the objections to resorting to this method of publicity is the fact that quacks and impostors have resorted to this method of publicity to such an extent that it has become discredited in the eyes of ethical physicians. It is unfortunate, of course, that we must appear to be "fighting the devil with fire," but the necessity of the situation is what we are confronting and not what should be the case. We are reproducing here an ad of this type which doubtless was most effective. (Figure 3.) It was evi-



A Wise and Righteous Law Is Being Flagrantly Violated In this County Every Day

The Courts are Conscientious and Competent; Public Opinion Must Support Them.

Any person who treats sick people for any trouble or disease by any method, whether by prescribing drugs or using a mechanical means or by giving advice, one or all or any method whatsoever, should have knowledge of the human body and its diseases. If he does not know what is the matter with a sick man, he cannot know what treatment is best nor when any particular form or method should be used.

It is against the law in this State for any person to treat or minister to the sick, charging for services, unless he has passed the State Board appointed by the Governor, obtained a license, and registered it with the District Clerk. Any person so treating people by any method or system, whether a regular doctor, a homeopath, eclectic, osteopath, magnetic healer, chiropractor or whatnot, is violating this law.

Contagious diseases spread because unrecognized, children die that ought to have anti-toxin, cancer goes to incurable stages when early scientific treatment might have cured. In short enforcement of the Medical Practice Act will lessen human suffering and save life.

Human life is sacred. The State owes a duty to citizens which it wants to perform. Public opinion must co-operate with the Courts.

The medical profession of Collin County, believing in law enforcement and knowing the dangers of ignorance in the sick room, are supporting the Courts in performing their sworn duty.

Will you not, as good citizens, give your Courts the same moral support? Signed:

Collin County Medical Society

W. G. HARRIS	D. F. HOUSTON	J. T. MANTOOTH	R. A. VERDIER	M. S. METZ	H. H. COMPTON
E. L. BURTON	BEN F. LARGENT	E. L. HAILEY	H. F. WOLFORD	W. D. ELLIS	W. N. MANNING
A. E. JOHNS	J. C. ERWIN JR.	J. C. ERWIN SR.	B. F. GROUNDS	J. D. BURT	JOE W. LARGENT
W. S. WYSONG	P. D. ROBASON	W. R. MATTHERS	R. M. WALKER	A. C. CORRY	W. T. LARGENT
	WILL C. WRIGHT	R. L. DAVIS	JAMES H. HICKS	S. F. MORROW	

Each of the above is registered with the District Clerk as required by law.

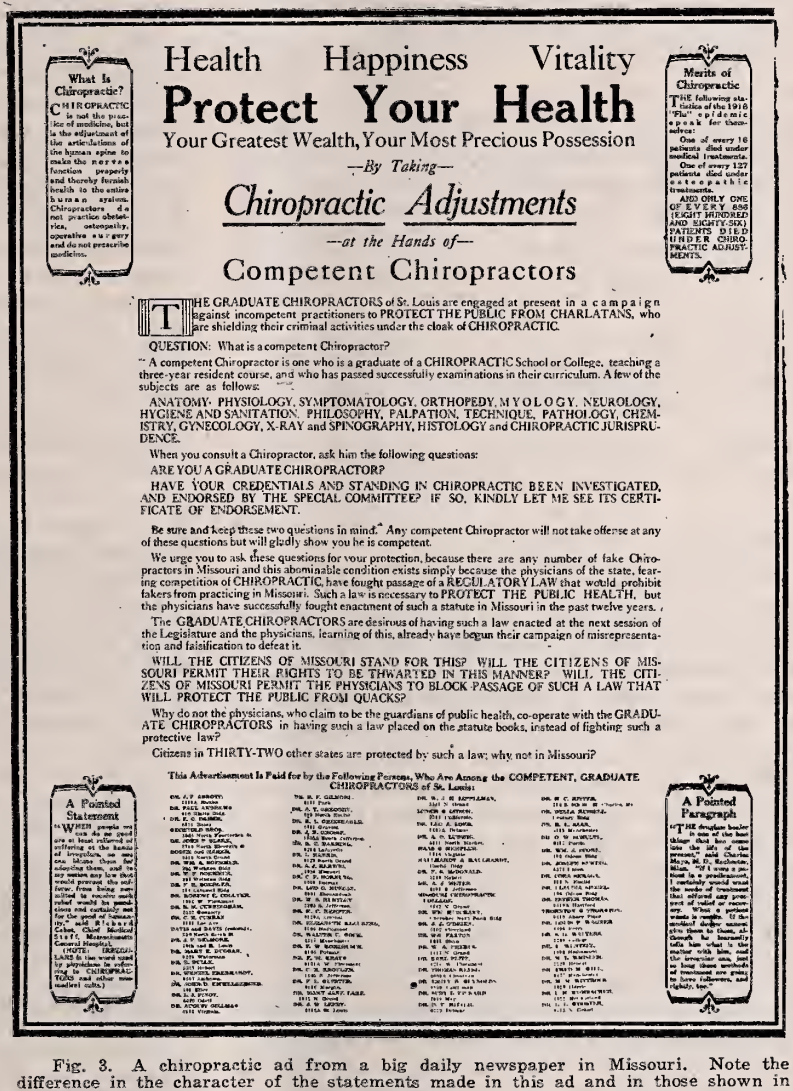
Fig. 2. A facsimile of an effective ad paid for by the Collin County Medical Society, in accordance with the "roster plan" of the State Association.

dently prepared by a trained ad writer. These people know the psychology of advertising and how to heat the iron, and how to strike it while it is hot. We can well take a lesson from them in that regard. The difference will be, of course, and the public will be quick to discern it, that in the one instance, reasonable and understandable facts are presented and in the other, unreasonable theory and misstatement of fact.

Form of Complaint in the Unlawful Practice of Medicine.—Since the beginning of the campaign for the enforcement of the Medical Practice Act, launched by the State Board of Medical Examiners and joined in by the State Medical Association, requests for a form of complaint which would stand the test of the courts and answer the purpose in hand, have been continuously coming to the attention of those in charge. At a conference of the official family of the State Medical Association, held in Fort Worth, September 1, the problem of enforcing the Medical Practice Act received extended attention. The determination to help the State Board of Medical Examiners in this important matter was reenforced, and the movement in our own ranks received a distinct impetus. The Attorney General of the State, the Honorable Dan Moody, delivered the principal address at a dinner on the evening of that day, in which he stressed the importance of enforcing this law and the various pertinent factors involved. He gave particular attention to the form of complaint to be used and the court procedures to be adopted. Subsequently, the form of complaint used in the celebrated Teem case (Teem vs. State, 183 S. W., page 1144) was adopted, and these forms will be furnished upon application to this office, to our general attorney, Mr. C. T. Freeman, of Sherman, or Mr. Lee P. Pierson, Santa Fe building, Dallas. It seems that the ordinary blanks for the filing of complaints will not suffice in many cases. In the interest of our records, and for the immediate information of those concerned, we here reproduce this form:

The State of Texas, county of....., In the name and by the authority of the State of Texas:

1. Before me, the undersigned authority, on this day personally appeared....., who, after being by me duly sworn, on oath deposes and says he has reason to believe, and does believe that heretofore, to-wit, on the.....day of....., 192....., one....., of the county of....., and State of Texas, in said county of....., and State of Texas, did publicly profess to be a physician and surgeon, and did then and there treat and offer to treat diseases and disorders, mental and physical, and physical deformities and injuries, and to effect cures thereof, and did then and there, while so professing, treat and offer to treat*.....and divers other persons to affiant unknown, for a disease and disorder without first having obtained and received a license and certificate of professional qualifications from any authorized State Board of Medical Examiners of this State, and without having a diploma from some reputable and legal college of



What Is Chiropractic?

CHIROPRACTIC is not the practice of medicine, but is the adjustment of the articulations of the human spine to make the nerves functions properly and thereby furnish health to the entire human system. Chiropractors do not practice obstetrics, osteopathy, operative surgery and do not prescribe medicine.

Health Happiness Vitality

Protect Your Health

Your Greatest Wealth, Your Most Precious Possession

—By Taking—

Chiropractic Adjustments

—at the Hands of—

Competent Chiropractors

Merits of Chiropractic

THE following statistics of the 1918 "Flu" epidemic speak for themselves:

One of every 16 patients died under medical treatments.

One of every 127 patients died under osteopathic treatments.

AND ONLY ONE OF EVERY 895 (EIGHT HUNDRED AND EIGHTY-SIX) PATIENTS DIED UNDER CHIROPRACTIC ADJUSTMENTS.

THE GRADUATE CHIROPRACTORS of St. Louis are engaged at present in a campaign against incompetent practitioners to PROTECT THE PUBLIC FROM CHARLATANS, who are shielding their criminal activities under the cloak of CHIROPRACTIC.

QUESTION: What is a competent Chiropractor?

A competent Chiropractor is one who is a graduate of a CHIROPRACTIC School or College, teaching a three-year resident course, and who has passed successfully examinations in their curriculum. A few of the subjects are as follows:

ANATOMY, PHYSIOLOGY, SYMPTOMATOLOGY, ORTHOPEDY, MYOLOGY, NEUROLOGY, HYGIENE AND SANITATION, PHILOSOPHY, PALPATION, TECHNIQUE, PATHOLOGY, CHEMISTRY, GYNECOLOGY, X-RAY and SPINOGRAPHY, HISTOLOGY and CHIROPRACTIC JURISPRUDENCE.

When you consult a Chiropractor, ask him the following questions:

ARE YOU A GRADUATE CHIROPRACTOR?

HAVE YOUR CREDENTIALS AND STANDING IN CHIROPRACTIC BEEN INVESTIGATED, AND ENDORSED BY THE SPECIAL COMMITTEE? IF SO, KINDLY LET ME SEE ITS CERTIFICATE OF ENDORSEMENT.

Be sure and keep these two questions in mind. Any competent Chiropractor will not take offense at any of these questions but will gladly show you he is competent.

We urge you to ask these questions for your protection, because there are any number of fake Chiropractors in Missouri and this abominable condition exists simply because the physicians of the state, fearing competition of CHIROPRACTIC, have fought passage of a REGULATORY LAW that would prohibit fakers from practicing in Missouri. Such a law is necessary to PROTECT THE PUBLIC HEALTH, but the physicians have successfully fought enactment of such a statute in Missouri in the past twelve years.

The GRADUATE CHIROPRACTORS are desirous of having such a law enacted at the next session of the Legislature and the physicians, learning of this, already have begun their campaign of misrepresentation and falsification to defeat it.

WILL THE CITIZENS OF MISSOURI STAND FOR THIS? WILL THE CITIZENS OF MISSOURI PERMIT THEIR RIGHTS TO BE THWARTED IN THIS MANNER? WILL THE CITIZENS OF MISSOURI PERMIT THE PHYSICIANS TO BLOCK PASSAGE OF SUCH A LAW THAT WILL PROTECT THE PUBLIC FROM QUACKS?

Why do not the physicians, who claim to be the guardians of public health, co-operate with the GRADUATE CHIROPRACTORS in having such a law placed on the statute books, instead of fighting such a protective law?

Citizens in THIRTY-TWO other states are protected by such a law; why not in Missouri?

This Advertisement Is Paid for by the Following Persons, Who Are Among the COMPETENT, GRADUATE CHIROPRACTORS of St. Louis:

A Pointed Statement

A Pointed Paragraph

Fig. 3. A chiropractic ad from a big daily newspaper in Missouri. Note the difference in the character of the statements made in this ad and in those shown in Figures 1 and 2.

medicine with verification license of same from a State Medical Examining Board of the State of Texas and without having the same recorded in the district clerk's office in the county of....., in which county the said....., then and there resided, as required by law, the said.....at the time and date aforesaid not coming under any of the exceptions as provided for by law exempting him from the provisions and requirements aforesaid, against the peace and dignity of the State.

2. And affiant further deposes and says that he has reason to believe and does believe that heretofore, to-wit: on said.....day of....., 192....., in the county of....., and State of Texas, one .....of said county and State, did then and there treat and offer to treat diseases and disorders, mental and physical, and physical deformites and injuries and to effect cures thereof, and did then and there charge money therefor, and did then and there on said date treat and offer to treat.....for a disease and disorder, and did then and there receive from the said..... money therefor without first having obtained and received a license and certificate of professional qualifications from any authorized State Board of Medical Examiners of this State, and without having a diploma from some reputable and legal college of medicine with verification license of same from a State Medical Examining Board of the State of Texas and without having the same recorded in the district clerk's office in the county of....., in which county the said..... then and there resided, as required by law; the said....., at the time and date aforesaid not coming under any of the exceptions as provided for by law exempting him from the provisions and requirements aforesaid; against the peace and dignity of the State.

.....

Sworn to and subscribed before me by....., this the.....day of....., A. D., 192.....

.....

.....

*Here give name of patient.

Vicarious Practice of Medicine.—In years gone by, the embryo physician was allowed to practice medicine under the supervision of a preceptor, or some established physician who would serve in such capacity, in advance of his graduation and license to practice. In those days, when physicians were few and far between, and the need for their services pressing, and the difference between the knowledge of a medical student who had read medicine under a good preceptor and the physician who was authorized to practice, was largely a matter of experience and personal observation, this was a good thing. As the art of practice developed and the various sciences were brought into play, this difference became wider, and it eventually appeared to be unsafe to continue the system. So the laws of this State enacted to control the practice of medicine, were so framed as to forbid this procedure. The right of a physician to employ an individual as an assistant, under his direct supervision, in the performance of any act the said physician is authorized to perform, has not been questioned, but he cannot, under the law, refer any part of his work as a practitioner of medicine to any person unauthorized to practice medicine, to be accomplished outside of his personal and direct supervision.

Of late years, the followers of peculiar systems of practice, who either do not desire or cannot for any reason qualify under the State law for the practice of medicine, have in many instances resorted to a subterfuge of this sort for evading the law. It is evidently believed by some that a physician may refer patients to them for their peculiar treatment, in the effort to prevent or cure disease, bodily deformity, etc., and that they may treat such patients so referred with impunity. This is true only to the extent that their practices are not in violation of the Medical Practice Act. For instance, a masseur may practice his art and apply the well established scientific treatment of massage, upon the request of a licensed practitioner of medicine that he do so, exactly as a licensed pharmacist would fill the prescriptions of a licensed physician. For that reason the masseur is exempt from the Medical Practice Act, and for the same reason it is provided in the exemption clause that the said masseur must be acting within his sphere as such. In other words, even the masseur, who is exempt under the law, may not apply his art as a practitioner of medicine, whether or not told to do so by a licensed physician. It is clear that no licensed physician can have the power to authorize others to practice medicine. In support of this contention, we submit the following paragraphs from an official opinion rendered to Dr. T. J. Crowe, secretary of the State Board of Medical Examiners, by the attorney general's office, written by assistant attorney general, Mr. C. A. Wheeler:

"Replying to the question, you are advised that in our opinion it would be a violation of the law for any person who shall publicly profess to be a physician, or surgeon, to treat any disorder or disease, mental or physical, or any physical deformity or injury by any system or method or to effect cures thereof, whether such person claiming to be a physician or surgeon received compensation either directly or indirectly. See article 755, penal code, subdivision 1. Therefore, if a physician employs as assistants in a hospital persons who profess to be physicians or surgeons for the purpose of giving treatments for any disease or disorder, mental or physical, etc., who are unregistered practitioners, as required by law, subdivision 1, article 755, penal code, would be violated.

"Subdivision 2, article 755, penal code, applies to all persons who shall treat or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury by any system or method, or to effect cures thereof and charge therefor, directly or indirectly, money or other compensation, even though they may not publicly profess to be a physician or surgeon, and if the assistants re-

ferred to in your question are not publicly professing to be physicians or surgeons, but are directly or indirectly charging money or other compensation for the treatment they give, such conduct is prohibited under subdivision 2 of article 755, penal code."

Southern Medical Association Committees.—President Dr. Rosser has requested the appointment of a committee in each county medical society of the State, the purpose of which shall be to bring to the attention of our members the opportunity we will have to visit the Southern Medical Association during its annual session, to be held at Dallas, November 9-12. There is no doubt in the mind of the President but that every physician in Texas who has ever attended a meeting of the Southern Medical Association, will be present if possible, but there are many who have never met with this splendid organization, and it is hoped by this method to procure a record attendance. This is not so much in the interest of the Southern Medical Association as it is for the good of our own profession. While it is true that the Dallas profession has promised the Southern Medical Association that its present session will be well attended by the medical profession of Texas, we would hardly be justified in insisting that our members strain a point in order to do so merely for that reason. We are insistent, as we say, because in our estimation this is an opportunity not to be overlooked.

The Southern Medical Association met in Dallas in 1915. Anticipating that meeting, over 1,000 Texas physicians joined the Association, and the meeting was a large and profitable one. When the suggestion was first made that that meeting be held in Texas, it was not entertained. It was felt that the Association must meet more nearly the center of its population. It was felt that Texas was too far out and too thinly populated. Our argument was that in this manner we would increase our membership materially in this section of the country, and that the attendance would otherwise be satisfactory. Our predictions then were justified. We trust they will be more than justified this time, and that this meeting, of which we will have more to say next month, will be the largest and most wonderful this great organization has ever held.

Support Our Home Clinics First.—This is more than a slogan; it is wise advice. "See America first" has done much to promote travel and convince our own people that we have the most wonderful country on earth. There can be no doubt concerning the broadening influence of travel. The "four-mile prairie" at home looked rather large to us before we had been through the Panhandle of Texas. In the light of our more extended travel, the old "Iron Mountain" at home has become a mere knob. Many of our "rivers" have become "creeks" and even "branches," and altogether we have found out what a wonderful world this is and what a wonderful country our part of it is. The trouble is, we have come to think that as the further pastures are the greener, so the further away the countries, the more wonderful they are. That may or may not be true in either instance. The thing to do is to inspect the home pasture and then take a trip and do a little inspecting over there. It may be that we cannot take a very long trip, but we can at least give our own surroundings the once over.

The medical profession of several of our larger communities promote one and two-day clinics at stated intervals, at which time the most interesting cases are presented and discussed and the patients examined by those in attendance. If these clinics are encouraged, any or all of them may in the course of time develop into splendid teaching groups.

For the past two years, our two teaching institutions—Baylor at Dallas, and the University of Texas at Galveston—have been conducting well organized clinics of two weeks duration each. So far these clinics have been crowded to the limit. If we continue to insist upon it, quite likely from this start will arise permanent postgraduate teaching institutions.

Many years ago, in New Orleans, several of the younger members of the medical profession organized a postgraduate school, the New Orleans Polyclinic. This organization came about by virtue of the recognition by the physicians of the South of the splendid opportunities for clinical study presented by the noted charity hospital and the medical college. For years we had been going to New Orleans because the material was plentiful and the teaching course at hand, but this was the first organized effort to utilize this opportunity for clinical teaching. Recently, we are informed, this institution has been reorganized under the rules and regulations set out by the Council on Medical Education and Hospitals of the American Medical Association, and is definitely and finally available for the highest type of clinical teaching. This is as it should be, and we predict for the New Orleans Polyclinic as wonderful a future as it has already had a splendid past. Here, as in the great clinics of the East and those of the Old World, may be secured any sort of short

or long course in any branch of medicine, with a three-year term leading to a degree.

In Kansas City, Missouri, some years ago the local profession began to furnish clinics for meetings of the Medical Association of the Southwest. It was found that there were more clinics than could be utilized or taken advantage of during the brief period of the meeting of that organization, and the time was extended to include an entire week, with clinics in the mornings and lectures and papers in the afternoon, the business of the association being taken care of between times. This proved to be a startling success, and the "Kansas City Annual Fall Clinical Conference," which will be held this year October 5-9, is an established and valuable event. The local profession is learning how to utilize the clinical advantages of this large and enterprising community, and some day there will be here, as in many of the larger and older communities, a permanent and continuous postgraduate teaching institution.

We presume there are other similar activities nearby, but do not have them in mind at this writing. Our purpose is not simply to boost those we have mentioned, but to approve of and urge that they be patronized to the end that they may be developed to the highest point of efficiency and supported on the same plan.

The Third School for Health Workers and Sanitarians will be held at Waco, October 7-10, 1925 (both dates inclusive), under the auspices of the Texas Association of Sanitarians and with the coöperation of the City of Waco, Baylor University, and the Texas State Board of Health. Dr. A. H. Flickwir, city health officer, Houston, is president of the Texas Association of Sanitarians, and Dr. W. A. Buice, professor of public health, Baylor University, will be the director of the school. All general sessions will be held on the mezzanine floor of the Raleigh Hotel, and the laboratory sessions will be in the science hall, Baylor University. A very interesting and instructive program has been prepared on which appear the names of a number of prominent sanitarians from other states, as well as many names familiar in public health work in our own State.

This commendable endeavor on the part of those interested in public health is probably not appreciated by the profession at large. This is due, doubtless, more to a lack of understanding of what good and true work is really being accomplished, than it is to a lack of interest. It would be hard to conceive of any doctor who is genuinely interested in public health work, and whose profession means more to him than a meal ticket, who would not be interested in the effort being put forward to standardize the instruction received by those responsible for the supervision of water supplies, sewage and refuse disposal, inspection of food, and other problems connected with sanitary engineering and public health work. If physicians become better doctors by hearing scientific programs read by their fellows, and by participating in such programs, then, by the same sign, sanitarians and health workers should be benefitted by scientific programs in which the practical problems with which they come in contact daily, are dealt with in a scientific manner by those whom training and experience have qualified to speak with authority.

There is no question but that despite the wonderful advance made by modern curative medicine, the greatest progress achieved by scientific medicine has been in the field of prevention.

And yet, at the last Annual Session of the State Medical Association, the Section on State Medicine and Public Hygiene was so poorly attended as to be very discouraging to its capable section officers. Although the program of this section was one of the best balanced public health programs ever offered the members of the State Association, the average attendance was less than twenty-five. The program of this section contained the names of men known both nationally and internationally for their work in preventive medicine—men who brought a message that was both scientific and practical and that would have been beneficial to any practitioner of medicine. The public naturally looks to the family doctor for advice concerning all matters of sanitation and public health—and rightly so! Are the doctors of our State qualified to give such advice, when sought? Are they the leaders in movements looking toward the betterment of living conditions, of food supplies, and of sanitation in general?

The school child of today studies hygiene and learns the importance of proper sanitary measures. The parents of this school child are interested in seeing that no measures are neglected which will safe-guard their child's health. The people are always interested in this subject when it is so presented that they can understand the necessity of observing the fundamental principles of preventive medicine. As has been stated before, the family physician is the natural leader in this field, and our leaders must lead.

The School of Instruction for Health Workers and Sanitarians has the hearty

endorsement and support of the State Medical Association, and we bespeak for it the continued interest and support of the medical profession of this great State.

Physiotherapy to the Front.—For many years the advantages of physiotherapy have been contended for by enthusiasts in the medical profession. In the early days the physician who did everything relied on drugs first and physical agents second, the latter in support of the former. Future conduct was guided largely by present success in any given class of cases. There were not at hand, in those days, the agents for diagnosis and scientific work that we now have for guidance in the conduct of our cases. When science began ruthlessly to tear down beautiful and sometimes bizarre medical structures, born of our own individual personal observations, both drugs and physical agents came under suspicion. Perhaps the latter suffered more than the former. The American Medical Association took up the fight against irrational drug therapy and great has been our gain. Commercial agents began to figure in the field of physiotherapy, following the lead of our relatively few advocates of this sort of treatment both as an adjunct to and as a substitute for treatment with drugs, and we owe much of the advantages that have come from the development of this field to these same commercial agencies. However, and as might have been expected, there are those who would take advantage of situations such as this, and physicians and the public have both been seriously defrauded and misled in the purchase and use of a variety of complicated apparatus, more particularly in the early days pertaining to electricity and, during later times, to heat and light. So great has been the imposition that a demand has grown up for the same sort of control that has been so advantageously applied in the field of drug therapy, and the American Medical Association, at its Atlantic City meeting last spring decided to do something about it. The Trustees have been requested to arrange for some such protection as has been exercised by the Council on Pharmacy and Chemistry. Doubtless this will be done, and quite probably there will be some illuminating reports on this subject during the next meeting of our national body.

In the meantime, certain commercial agencies and scientific organizations interested in this work, are pushing their endeavors along ethical and proper lines (and some are not!). We are moved to these remarks by receipt of the prospectus and programs of the Fourth Annual Physiotherapeutic Convention, to be held in Chicago, at the Drake Hotel, October 12-16, and the meeting of the American College of Radiology and Physiotherapy, to be held in the same city, at the Hotel LaSalle, October 19-22. Together, these two assemblies offer an opportunity to study both the practical and scientific side of the prevention and treatment of disease by the use of means other than drugs, that cannot be well overlooked by those who are particularly interested and which might well be taken advantage of by any physician practicing any branch of medicine, particularly general medicine. The first named convention is sponsored by H. G. Fischer and Company, a commercial concern but one which appears to be intensely interested in the proper development of this field. The scientific program will doubtless be quite interesting. The authors of papers to be read are among the leaders of thought along these lines. Ultraviolet Light, Galvanism, Hydrotherapy, Diathermy, Light Therapy, Electrocoagulation, Heliotherapy, Ionization, and Galvanotherapy, to speak briefly, will be discussed in a variety of combinations and in application to a great variety of diseases. There will be clinics, conducted by physicians of some attainment, demonstrating the types of cases in which these various agents may be applied to advantage, and the technique of their application. Altogether, this is one of the most ambitious endeavors we have ever known to be conducted as a commercial enterprise and in entire accord with medical ethics.

The American College of Radiology and Physiotherapy is, of course, a high-class, scientific organization, comparable to the American College of Surgeons and the American College of Physicians, no doubt. It includes in its membership the leaders of thought in the science of radiology and physiotherapy, and will doubtless succeed in placing these branches of medicine definitely on the high scientific plane that the other great specialties have attained. We feel sure that the organization is entitled to the support of those who specialize in these branches, or have special interest in them. The preliminary program before us includes papers of great interest, to be presented by practitioners of eminence throughout the country.

The success of our Section on Radiology and Physiotherapy, recently established, leads us to expect much from this line of endeavor, and doubtless the two institutions above mentioned will receive warm support from Texas.

ORIGINAL ARTICLES

MILD TYPHUS (BRILL'S DISEASE) IN THE LOWER RIO GRANDE VALLEY.*

BY

KENNETH MAXCY, M. D.,
Assistant Surgeon, U. S. P. H. S.,
WASHINGTON, D. C.

"Tabardillo" is known to have existed in the highlands of Mexico since the great epidemic of 1576-77, which, according to the writings of Padre Sabagun, carried off some two million Indians. Many writers have remarked upon its singular limitation to the Mexican plateau, *i. e.*, to altitudes above 2,000 feet, and upon its prevalence in the cold months of the year. During the winter and spring it is of common occurrence in such cities as Saltillo, San Luis Potosi, Guadalajara, Aguascalientes, and Mexico City. The lowlands along the coasts and the Rio Grande Valley have been relatively free from this disease. When cases occurred here, they were usually recent arrivals from the interior of Mexico, sporadic, and rarely followed by secondary cases.

Since the work of Ricketts and Wilder and of Anderson and Goldberger, about 1910, identifying "tabardillo" with Old World typhus, it has been generally accepted that the disease is thus limited in its distribution because of a similar limited distribution of its principal—if not only—vector, the body louse. The cold temperatures of the highlands require the wearing of more clothing by the Indians. During the winter and spring months they live crowded together in huts, bathe little and collect vermin. Under these conditions the disease gains headway. With the return of warm weather and the consequent change in habits, transmission becomes more difficult and the disease decreases during the summer. The natives living in the lowlands, although infested with head lice, do not ordinarily harbor body lice any great length of time, and for this reason the disease cannot maintain a foothold in the lowlands.

Thus the disease has maintained an endemic prevalence in the Mexican Plateau, breaking forth in devastating epidemics from time to time as conditions arose which favored its spread. The last such epidemic occurred in 1915. Following the disordered conditions in that southern republic, with abnormal and unusual troop and refugee movements, largely attended by neglected sanitation, typhus fever overflowed its former boundaries and cases commenced to be observed in border and coast cities of Mexico. It was first reported in American territory at Laredo, Texas, in December, 1915. In the following six months there were 104 cases reported in Texas, 11 in Arizona and 8 in New Mexico. The worst outbreak was that in the vicinity of El Paso, where among the first 55 cases there were 9 deaths, one of which was that of the City Health Officer.

The epidemic in Mexico abated in 1918, and since that time, except for the occasional sporadic case the disease has given no further trouble along the American-Mexican border until this past summer. During May and June, 1924, Dr. G. W. Edgerton of Rio Grande City and Maj. Fletcher Gardner of Fort Ringgold began to note cases of fever of about 14 days' duration, with eruption, and they suspected that they were dealing with typhus. Investigations were undertaken by Major C. G. Sinclair, U. S. A., and myself.

From May to November, notes and observations were made upon some 70 cases, distributed in the lower Rio Grande Valley from Laredo to Weslaco, viz.: Laredo, 1, Rio Grande City, 11; Fort Ringgold, 5; Mission, 25; McAllen, 2; San Juan, 1; Alamo, 8; Pharr, 6; Donna, 2; Weslaco, 4; Edinburg, 4; Falfurrias, 1. Undoubtedly there were many more cases in that section of the border, which were not investigated, and at the same time sporadic cases of typhus were reported from other parts of Texas, particularly Houston and Waco.

CLINICAL OBSERVATIONS.

The symptom complex corresponded very closely with the description of mild typhus by Brill.[1] The onset was abrupt, usually with severe headache and pain in the back of the neck, flushed face, weakness, and fever. Chills or chilly sensations were not unusual. Nausea and sometimes vomiting occurred during the first few days, but did not persist. After the onset, the fever rose rapidly, reaching maximum during the first week, becoming remittent in the second, with return to normal in about 14 days—usually by lysis, but sometimes more abruptly.

The eruption appeared on the third to the sixth day, usually first on abdomen, chest, and upper arms, later spreading to the back and extremities, and, rarely, to the face. In some cases a preliminary dusky mottling of the skin was noted, particularly in the interscapular region of the back. The spots appeared at first small and discrete, could not be felt, were apparently erythematous in character and dull red in color; later they became irregular in size, some slightly raised, the color becoming darker, and some did not disappear on pressure, being petechial. In

*Read before the Section on State Medicine and Public Hygiene, State Medical Association of Texas, Austin, May 6, 1925.

1. Brill, N. E.: "An Acute Infectious Disease of Unknown Origin," Am. Jour. Med. Sc., 1910, Vol. cxxxix, p. 484.

two cases multicolored stains remained in the interscapular region after the receding of the rash, as if there had been subcutaneous extravasation. The rash usually lasted until convalescence was established.

It is notable that nervous symptoms were generally absent, except for the severe headache and dullness or apathy or, in some instances, a nervous irritability. None of the cases developed a frank delirium or became comatose; in a few instances there was some confusion and slight delirium at times.

Respiratory symptoms were limited to a characteristic slight, hacking cough in the early stages. In two instances the sputum became tinged in the latter part of the disease, with evidence of severe inflammation of the respiratory tract. Evidence of circulatory damage was seen only once—in a man some sixty years of age, who was evidently a bad risk before his acute illness began. About the eleventh day he developed symptoms of cardiac weakness and for a time a fatal termination was expected, but he finally pulled through on a digitalis therapy.

Aside from the instances mentioned, the cases were generally uncomplicated. No deaths occurred which could with certainty be attributed to this disease. Inasmuch as there were probably more than 100 cases during the course of the summer, the extreme mildness of the disease is significant.

LABORATORY FINDINGS.

A few white blood cell counts were done and these proved to be within the normal range or slightly high.

Blood specimens were obtained from 25 cases. The Widal reaction—agglutination for B. typhosus, B. paratyphosus, A. and B. paratyphosus, B.—was consistently negative except in one or two instances in which there was the history of a preceding attack of typhoid fever. On the other hand, where the specimen was obtained late in the disease—toward the end of the second week—in almost every instance the Weil-Felix reaction was positive in a titre greater than 1/100. This reaction has now been generally accepted as specific for typhus fever.

Guinea pig inoculations were made from several cases. In one instance very suggestive results were obtained. Of the three animals inoculated intraperitoneally with blood taken from Case R. G. 4, Pharr, Texas, on the sixth day of her illness, October 20, all showed a suggestive rise in temperature, that of two of the animals going up to 104 degrees F. on the eleventh day after inoculation. One of these animals died on November 28, with no gross pathological change; the other two were shipped to the Hygienic Laboratory, U. S. P. H. S., Washington, D. C. They were injected with typhus virus from Polish sources but failed to show the characteristic febrile response, although the non-immune control animals came down as expected. This result would indicate that the disease with which we were dealing on the Border gave immunity to the animals against Old World typhus.

EPIDEMIOLOGICAL OBSERVATIONS.

It seemed logical to assume in the first place that the disease had been imported from the endemic areas of Mexico, either directly or through spread from the other side of the Rio Grande. So far as could be ascertained there was no excessive prevalence of "tabardillo" in the highlands. Inquiry in Carmago, a nearby Mexican town, failed to reveal the presence of the disease there. Dr. Manual Morales of Rienosa, Mexico (opposite Hidalgo and McAllen), stated that he had similar cases in that town during May, June and July, 1924. Physicians practicing in Monterrey, the nearest large Mexican city, 120 miles distant by direct rail communication, had seen no cases of this type during the past year or more, though the disease prevailed there in former years.

In studying the individual cases it was sometimes possible to demonstrate close association one with another. Thus the first recognized case in Rio Grande City was that of the county tax collector (Case A), a Mexican of ubiquitous contacts on both sides of the Rio Grande. His sister (Case B), who nursed him, and two friends (Cases E and F), who visited him during the course of his illness, came down with the same disease shortly afterwards. The first case at Fort Ringgold was in a Mexican who lived at Rio Grande City and worked in the Post tailor shop (Case D). No direct association could be traced between these cases and Case K, who came down on July 11, but the latter was followed, ten days later, by another soldier (Case N) from the same squad room. Case L, a Mexican girl of 13, is known to have played with children in the home of Case G while he was ill. The mother and sister of this girl subsequently had the disease (not listed). Case P (onset July 15) in Edinburg, was followed by a case in a neighbor (not listed) who became ill with a 14-day eruptive fever on July 29. While the neighbor had not entered the home of "P," he had bought gasoline from him before his illness, and his children had gone to the "P" home daily for milk. By these instances, some degree of direct or indirect contagion is indicated; though one could hardly speak of the disease as "highly contagious," as there was usually only a single case in a family.

The age distribution, it will be noted, was that commonly ascribed to typhus; all of the cases except one—a child of nine—were in adults. Mexicans greatly predominated; but, taking into consideration the composition of the population, they had only their proportionate share.

Inasmuch as the body louse (P. humanus var. corporis) is commonly accepted to be the vector of typhus, search was made in each case investigated, *without success in a single instance.* The body louse is of uncommon occurrence among the Mexicans of the lower Rio Grande Valley. Though they are occasionally brought in by recent arrivals from the interior of Mexico, they do not commonly survive in the Valley more than a few days—at least during the summer months. This is probably due to the high temperatures, the scanty clothing worn, and the reasonably frequent bathing and washing by the natives. This is common knowledge in the lowlands; and when peons from the Mexican Plateau arrive no special means of disinfestation are taken.

On the other hand, the head louse (P. humanus var. capitis) is omnipresent. Every Mexican family of the poorer class is either constantly or intermittently infested with this insect. Along the border towns, 50 per cent or more of the Mexican school children have nits or live insects, or both, in their hair at all times. It is by all odds the most common biting and blood-sucking insect associated with the cases under investigation.

No observations were made upon ticks, fleas, or bedbugs. The common house mosquito of this section (Aedes aegypti or stegomyia calopus) was present only in small numbers, owing to the yellow-fever control measures maintained by the United States Public Health Service on the border.

DISCUSSION.

The clinical and laboratory evidence indicated that the disease under consideration was typhus fever. On the other hand, there were certain factors in the situation which were puzzling: First, there was the extreme mildness of the disease, absence of complications and nervous symptoms and of fatal cases. The clinical picture was more like that described by Brill as endemic typhus than like that of clinical "tabardillo;" secondly, the disease prevailed in the summer and fall months (instead of winter and spring as is expected with "tabardillo"); thirdly, an outbreak of "typhus" or "tabardillo" on the American side is extremely unusual in the absence of an epidemic in Mexico; fourth, "tabardillo" has been considered a disease of the highlands, and it was not thought possible for it to spread in the lowlands of the lower Rio Grande Valley; fifth, the disease prevailed in a population with few or no body lice, although head lice were common parasites.

During the course of the investigation, it was ascertained that within the last ten years it has come to be appreciated by the Mexican physicians that cases of what appeared to be a very mild form of typhus were occurring in and about the city of Monterrey, and in the valley states of Coahuila, Nuevo Leon, and Tamaulipas. At times, the disease has attained considerable spread. For instance, Dr. E. Rangel, a prominent internist of Monterrey, who does a consulting practice in the surrounding territory, states that he has seen "hundreds" of cases in the last ten years—as many as fifty in a single year. During this time he recalls having signed only two death certificates naming the disease—a commentary upon its mildness. According to Dr. Antonio de la Garza[2], this mild form of "tabardillo" has largely passed unrecognized, being denominated by other physicians variously as "general infection," "paratyphoid," "malaria," "malarial petechial typhus," "petechial 14-day fever," "14-day fever," etc.

It has been pointed out independently by Dr. Rangel that certain clinical and epidemiological differences distinguish this disease of the lowlands from the classical "tabardillo" of the interior, viz: The extreme mildness of the disease; relative absence of nervous manifestations; absence of severe skin involvement; relative absence of complications of any sort; shorter duration and a greater percentage terminating by lysis; and a case fatality of less than two per cent. He also noted that this disease has become widespread in a population where there are few body lice, though there are many head lice; that lice are not observed in a great many instances; that many cases have occurred among the better class of people in Monterrey, who are free from vermin of any sort; that it is rare to observe more than one case in a household; and that the disease prevails principally in the summer and fall months.

On the American side, it was found that Dr. John Hunter, in about 1918, had read a paper before the Hidalgo County Medical Society describing three cases of "Brill's Disease" which he had observed at McAllen. A prominent Mexican physician at Laredo, stated that he had observed an outbreak of seventeen cases of this type in that city, about 1922. Other physicians practicing in the Valley, having had this disease syndrome called to their attention, state that they have from time to time in recent years seen sim-

2. Antonio de la Garza: "The form of Tabardillo which is observed in the State of Nuevo Leon," Mexico Memorias y Actas de 20 Congresso National de Tabardillo, Mexico City, 1922.

ilar cases, but had usually classified them as paratyphoid with an unusual eruption.

CONCLUSIONS.

These facts lead us to believe that mild typhus (Brill's Disease)—perhaps a permanently attenuated strain—is endemic in the lower Rio Grande Valley and has been there for some years, occurring sporadically, not attaining a very wide spread, and largely passing unrecognized under the name of paratyphoid fever, Rio Grande fever, etc.

The mode of spread in these cases is not altogether clear. According to present information, the body louse (Pediculus humanus var. corporis) does not survive for a sufficiently long period of time in the warm climate of the lowlands, nor is it sufficiently ubiquitous to act effectively as a vector. On the other hand, the head louse (P. humanus var. capitis) is sufficiently widely distributed and commonly found in the families where cases occur. Epidemiological evidence is thus brought to support the experimental work of Anderson and Goldberger,[3] and others, which has tended to show that P. capitis may be similarly concerned in the transmission of this disease. The work of Nutall and his collaborators has emphasized the fact that P. corporis and P. capitis are no more than different races of the same species —P. humanus. It seems not unlikely, therefore, that P. humanus var. capitis may be the vector responsible for the transmission of these mild cases occurring in the Rio Grande Valley.[4]

ABSTRACT OF DISCUSSION.

Dr. A. H. Flickwir, Houston: My observation of typhus fever has been limited to three cases which I saw in Houston. After hearing the doctor's interesting paper, the detailed report of these cases may sound out of order and strange to you.

Of the three, one case was a man who had good habits, was refined, with money, lived within clean surroundings and his body was absolutely free of lice or vermin of any nature. A second case, a lady from a refined family, living under hygienic surroundings, contracted typhus and died. A third, a bald-headed man, absolutely clean in his habits, a man of means, a contractor who gave a history of working Mexicans on a job, contracted typhus fever, and, thinking probably lice from the Mexicans invaded his body, the Mexicans were thoroughly examined and no lice or vermin of any nature were found on them.

The three cases were positively diagnosed typhus fever. There seems to be some other means of transmitting typhus than through the bite of the body louse.

Dr. Carl Lovelace, Waco: I am convinced that typhus fever is as prevalent and common in central Texas as typhoid; I have found and reported to the health officer of Waco seven cases since 1919. I am about the only doctor in Waco who ever makes a diagnosis of typhus; only one other case has been reported by another doctor during this time. The doctors believe that I have misdiagnosed, that surely no typhus exists in Waco, and that the eruption seen is possibly a rash due to a drug or some other cause and not typhus. I lost two cases, both Mexicans, years ago. Most of these cases were in patients living under splendid hygienic conditions and of high social standing, with good incomes, and were apparently free of body lice.

Dr. W. A. King, San Antonio: I think the few cases that have been found in San Antonio received the infection while in Mexico. Few cases have contracted typhus in our State.

Dr. W. F. Hickle, Kenedy: The odor of a bad case of typhus is very characteristic and one familiar with it can diagnose a case with his eyes closed.

Dr. H. O. Sappington, Austin: The profession should not dispute the diagnosis of their brother practitioners without seeing the cases. They should not make snap judgment and render a quick opinion, but should always make a thorough examination and be sure of their diagnosis.

Prof. W. A. Buice, Baylor University, Waco: Dr. Lovelace, I assure you, is not a "nut." He is not so regarded by intelligent laymen of Waco, nor by the members of the McLennan County Medical Society. Certainly, there is some other method for transmission of typhus than by body lice. The fact that Ricketts, Prowazek, and recently, Bacot, and a host of other careful laboratory workers, have lost their lives while investigating typhus fever is evidence of itself that the infection is distributed by other means than the louse alone, for these workers either suspected the louse or knew it to be at least one of the agents of dissemination, and they took the utmost precautions against infection from the body louse. And yet a number of these workers were infected. This fact alone is strong evidence that typhus may be transmitted in other ways than the body louse.

3. Anderson and Goldberger: Bull. No. 86, Hygienic Lab., U. S. P. H. S., Washington, D. C., 1912. Toepfer: Deutsch. Med. Wchnsche, 1916, Vol. xlii, p. 1251. Nicolle: Bull. de'l Inst. Pasteur, 1920, Vol. xviii, p. 49. Foster: Arch. Int. Med., 1915, Vol. xvi, p. 363.

4. Acknowledgments: The author gratefully acknowledges the assistance given by Maj. Fletcher Gardner and Drs. G. W. Edgerton, James Makins and J. H. Mahone, for investigations of cases on the American side, and to Drs. Rangel and Barragan, of Monterrey, for information concerning the disease on the Mexican side.

THE ULTRAVIOLET LIGHT: CASE REPORT SHOWING PHOTOSENSITIZATION.*

BY

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The first systematic effort to study the physiological effect of light was made by Finsen in 1896. Since then, the use of actinic rays of sunlight have been popularized in the treatment of tuberculosis and rickets. It has been discovered that the ultraviolet rays in sunlight constitute the energy having curative effects. The evolution of the mercury vapor quartz lamp has given us a form of artificial energy which can be adapted to the treatment of conditions to which sunlight has been applied, and has enabled us to learn more about the indications for light therapy.

*Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, Austin, May 6, 1925.

Physiotherapy is assuming an enviable place in therapeutics, and the ultraviolet ray is riding on this wave of popularity. Electrotherapeutics has been veiled with a sort of mysticism, so that the skeptical look upon it as a bogus cure. Unless a healing agent is adapted to meet definite indications, results will depend upon the personal equation factor and chance. As the indications for and limitations of ultraviolet therapy are becoming better known, it gains favor as a sane therapeutic agent. A study of the effect of the ultraviolet light upon living cells, leads one to a study of the phenomenon of photosensitization. It is our purpose, therefore, in discussing the ultraviolet rays, to incorporate a report of a case in which light served as an irritant.

This agent has been applied to the treatment of calcium deficiency diseases, and has been termed "a calcium mobilizer." It has been found to have curative value for rickets, and to raise the calcium and inorganic phosphate content of the blood of rachitic infants[1]. It has been shown that infants treated with light filtered through window-glass received no benefit, and that glass filtered out those rays beneficial in the treatment[2]. The penetration of the light varies according to the wave-length. Long rays are more penetrating than shorter ones, contrary to the penetrating properties of *x*-rays and radium rays. The depth of penetration does not exceed .1 mm. of skin. The exact nature of the process by which calcium deficiencies are corrected by ultraviolet light is not known. Undoubtedly, more than one factor influences calcium metabolism[3, 4]. Novak and Hollander, in a study of the influence of ultraviolet radiation on the calcium content of blood-serum, concluded that "exposure to the mercury vapor quartz light, together with combined calcium thyroid therapy appears to fix permanently the ionic calcium content of the blood stream." They found the ionic calcium content of the blood serum invariably low in hyperesthetic rhinitis, and in certain cases of hay-fever, and asthma. Because of the shallow penetration of the light it is hard to understand how it can have any systemic effect upon the body. However, experiments of Levy and Gassul (quoted by Clark) indicate that the light reflex causes a dilatation of the vessels of the viscera. They autopsied mice which had been exposed to ultraviolet light for from 10 minutes to 56 hours. The internal organs were examined both macroscopically and microscopically, and the spleen, lungs and liver were found engorged with blood. Thus surface application of the light no doubt has an influence upon metabolism.

Clinical results in the treatment of rickets with ultraviolet radiation warrant the application of the light to other conditions, and it has been used in the treatment of tuberculous bone lesions, tuberculous adenopathy, and anaphylactic conditions. Calcium, by mouth, has been given empirically for urticaria for years. It alone does little good. We do not know what conditions favor the absorption of this element nor the process of calcium metabolism. The adoption of ultraviolet therapy in the treatment of hay-fever, asthma and urticaria has been heralded with isolated reports of miraculous cures. In one case of chronic giant urticaria of 7 years standing in a middle-aged man, after every conceivable thing had been done in tracing the etiology of his complaint and after he had been dieted and treated until he was disgusted, he was put on a carbohydrate-restricted diet. He improved somewhat, but the hives kept recurring. Ultraviolet therapy was instituted, the treatment being given over one-fourth of the body surface at a time, the dose being raised until an erythema was produced. This was followed by desquamation and tanning, and the treatments were continued for about a month. He gradually improved to a complete cure, and when seen one and a half years later, he stated that the hives had no longer bothered him. This case appears to us to have gotten his benefit chiefly from ultraviolet therapy although calcium was given by mouth.

Ultraviolet radiation has been advised in the treatment of seborrhea, psoriasis, lichen planus, and pityriasis rosea. We think that the *x*-ray surpasses it for these conditions; however, we have noted its antipruritic action on lichen planus and pityriasis rosea. The rays cause a dilatation of superficial blood vessels, thereby increasing nutrition to the part: A reaction is caused similar to sunburn followed by desquamation. This local stimulating action of the light makes it a handy, clean stimulating agent suitable for the treatment of indolent ulcers, and skin conditions where local increased nutrition is desired, as in alopecia areata. The water-cooled lamp has been recommended for the treatment of portwine birthmarks, notably by Wise. However, it has not

1. Tisdall, F. F.: "Effects of U. V. Ray on Calcium and Inorganic Phosphate Content of Blood Serum of Rachitic Infants," Can. M. A. Jour., Vol. xii, p. 536, August, 1922.
2. Hess, A. F.: "The Ultraviolet Rays of the Sun," Jour. A. M. A., April 4, 1925, p. 1033.
3. Editorial, Jour. A. M. A., February 18, 1925, p. 680.
4. Novak, F. J., and Hollander, A. R.: "Influence of Ultraviolet Irradiation on Calcium Content of Blood Serum in Hay Fever, Hyperesthetic Rhinitis and the Asthmas; Preliminary Report," Jour. A. M. A., December 15, 1923, p. 2003.

gained much favor in the treatment of this condition by others.

Sampson[5] states that ultraviolet light renders the skin more resistant to subsequent röentgen-ray treatment; that when röentgen-ray is applied first in dosage sufficient to cause a dermatitis the effects can be alleviated or prevented by the application of ultraviolet rays. In confirmation of this is a report from Rulison[6] who, with the water-cooled ultraviolet lamp, prevented a röentgen-ray dermatitis on the side of the face of a patient who had by mistake gotten an unfiltered instead of a filtered treatment.

Rollier claims that people who do not tan, do not respond readily to sunlight. Just what chemical action takes place in pigmentation is not known. Laroquette has shown that sunlight filtered through glass, which cuts out wave lengths between 2,900 ang. units and 3,300 ang. units, produces only a slight pigmentation. Jobling states that wave lengths less than 2,900 ang. units, while producing a violent inflammation, do not result in heavy pigmentation, and that wave lengths greater than 3,300 can cause pigmentation, the effect increasing rapidly with decreasing wave-length (quoted by Dr. Clark). The shortest wave lengths in sunlight are around 2,900 angstrom units. The most effective wave lengths in sunlight seem, therefore, to be between these two limits.

Various experiments have been conducted with ultraviolet rays, dealing with the phenomenon known as photosensitization. The literature of the subject has been culled by A. W. Sellards[7], and Janet H. Clark[8], and it is from their papers the following abstracts are obtained:

"Some substances fluoresce in the presence of ultraviolet energy, chief among which are eosin, gentian violet, quinine and hematoporphyrin. Such substances thus exhibit what is called "photosensitization." The photodynamic action is not proportional to the degree of fluorescence. Some substances showing a high power of absorption and feeble fluorescence are very active photodynamically. Indeed, some substances which to the naked eye exhibit no fluorescent action are very active photodynamically. This is especially true of anthraquinone and other members of the anthracene series. Only that portion of the spectrum of which the wave lengths are absorbed by the fluorescent substance is effective. In the solar spectrum photodynamic action is excited most effectively by the actinic rays.

"That the photodynamic action of light can be enhanced by the presence of a flourescent substance is illustrated in the following: The iodides (KI and HI) and even metallic silver are rather rapidly oxidized in sunlight in the presence of eosin. Mercuric chloride and ammonium oxalate react readily in sunlight alone, but more readily when fluorescent substances are present. The agglutinating action of ricin, the hemolytic action of croton, the toxic action of diphtheria and tetanus toxins, and the protective action of tetanus antitoxin are injured or destroyed by photodynamic action of light alone (but this effect is usually increased by the presence of a fluorescent body)."

"The bactericidal effect of light can be enhanced by the presence of a fluorescent substance! This was discovered accidentally by Raab who, under the direction of Von Tappeiner, was studying the toxic action of acridin on paramoecia. He noticed the discordant results in determining the minimum fatal dose and found that acridin was lethal only in the light. With a strength of 1-20,000, paramoecia are killed in 6 minutes in direct sunlight, one hour in diffuse daylight, and are unharmed in the dark. Marshall Ward, in 1893, exposed anthrax bacilli in gelatine, to sunlight and by means of color filters, demonstrated that the effect was due to the violet end of the spectrum. In 1905, Hertel showed conclusively that the shorter the wave-length the greater the lethal effect on bacteria and paramoecia. Wave-lengths shorter than 2,900 kill bacteria easily."

Examples of photosensitization in man and in animals are occasionally referred to:

"It has been known for many years that certain ordinary foods may, under special conditions, give rise to extensive rashes, terminating in serious illness or even in death. For many years the essential circumstances of this poisonous action were very obscure. It is now apparently established that some of these symptoms result, at least in part, from the combined action of light and fluorescent products contained in the flood. Buckwheat when fed to sheep or swine, for the most part produces no untoward effects. This is especially true during the dark days of winter when the animals are kept under cover in stalls. But if the animals are white or have white spots and are exposed to bright light, then symptoms frequently develop. The symptoms, if not too advanced, subside when the animals are returned to darknened buildings, or if the hair is artifically colored. Under the same conditions of light and food, animals that are dark in color remain well. These toxic symptoms may be produced by various parts of the buckwheat plant, such as the grain, the chaff, or the straw, but the most active of all is the green plant itself."

Gay and McIver (quoted by Jobling and Arnold) have isolated fluorescent substances from corn, rye, oats and buckwheat. A phenomenon similar to the effect of buckwheat upon sheep has been described in horses that have fed upon certain clovers. Meyer-Betz tried the effect of hematoporphyrin on himself, by injecting it into his own blood. Subsequent exposure to light produced most distressing symptoms, and he remained light-sensitive for a long time. Injection of hematoporphyrin into white mice makes them light-sensitive. In the light-sensitive condition known as hydroa aestivale vacciniforme, hematoporphrin is found in the urine, and it has been suggested

5. Sampson, C. M.: "Ultraviolet and X-Rays as Physiologic Complements in Therapeusis: A Newly Established Clinical Treatment," Amer. Jour. Röentgen., Vol. ix, p. 570, September, 1922.
6. Rulison, R. H.: "Röentgen-Ray Overdosage," Jour. A. M. A., November 8, 1924, p. 1505.
7. Sellards, A. W.: "Investigations of Tropical Sunlight," Jour. Med. Research, July, 1918, p. 293.
8. Clark, Janet H.: "The Physiological Action of Light," Physiological Reviews, April, 1922, p. 277.

that it is an example of naturally occurring hematoporphyrin sensitization since the symptoms bear some resemblance to Meyer-Betz reactions.

Barber[9], in a series of hydroa aestivale patients, detected hematoporphyrinuvia in several cases. In the juvenile type he reported some success from restriction of meat in the diet, and noticed disappearance of lesions with the disappearance of the substance from the urine. Le Ray and Pacini[10], in 1911, showed that pellagral lesions could be quickly induced by exposing a small section of a pellagrin's skin to the highly active light of burning magnesium ribbon.

Jobling and Arnold[11] in a discussion of the etiology of pellagra, state:

"The suggestion that pellagra might be a photodynamic intoxication was made almost simultaneously by four different investigators: Hausmann, Lode, Horbeczewski, and Raubitschek. Their experiments, also those of Ummus, were made with photodynamic substances obtained from corn; but since in this country quite a number of those developing pellagra have been consuming only a minimum of corn products, we must obviously seek some other explanation. Nor must we fall into the error of assuming that the mere entrance of photodynamic substances into the intestinal tract is sufficient to set up a light sensitization, for chlorophyl (as shown by Hausmann, a strongly fluorescent and photodynamic substance), is, of course, a common constituent in the normal diet.

"We have been impressed for several years, with the possibility that pellagra may be due to a photodynamic substance produced by an organism located in the intestinal tract. The observations supporting the low protein theory may be readily explained by the assumption that this hypothetic organism can produce the light sensitizing substance only when growing in a favorable medium, consisting of an excess of carbohydrates. Such a theory would explain not only the skin manifestations of the disease, but also the results obtained with a high protein diet, and the epidemiologic observations made by ourselves and others. It would also explain why healthy individuals with a normal diet, failed to develop the disease when fed with infected material."

While the following case does not illustrate all of the points discussed, it is reported as showing marked photosensitization.

CASE REPORTS.

Case No. 1.—A. LaF., aged four years, was referred by Dr. Watt of Austin, April 10, 1924. Four other children in the family were healthy. He had never had any serious illness, or skin trouble until the age of one year and eleven months when, after exposure to the sun in the spring-time, his cheeks, forehead and the backs of his hands and wrists became red, dry and scaly. This eruption disappeared when care was used to prevent exposure to strong sunlight. The mother stated that the erythema of the cheeks was capped by vesicles. At the age of three the same condition appeared during the summer. About a month previously, the forehead, cheeks and nose began getting red and dry. In about one week's time vesicles and large bullae appeared on these sites. The condition spread over the face and neck and up the forearms almost to the elbows. A week later, the penis and scrotum and popliteal spaces were the sites of a similar eruption. A few placques appeared on the calf of each leg. The mouth had been sore one week, but at no time had there been any diarrhea.

Examination revealed an erythrodermia (as pictured) on the face, neck and dorsal surfaces of forearms, pubis, popliteal spaces and calves. Numerous thin and thick crusts covered many areas. The affected skin was of a violaceous hue and the edges of the lesions were sharply demarcated. The upper limit of the eruption on the forearms showed the lesion to be somewhat raised and with a festooned edge, so common in pellagra. Underneath the mandible was a rhomboidal area of skin on the neck, probably protected from the light by the shadow of the jaws. The auricles were involved. The skin of the eyebrow was unaffected, and the hair-line was the limit of the affection on the face.

Fig. 1. Showing character of eruption on face, neck, forearms and hands of patient in case reported.

Several areas on the leg were exposed to the water-cooled ultraviolet lamp for from 20 seconds to 2 minutes, but no dermatitis resulted. No experiments were made with the air-cooled lamp. The child was put in a semi-darkened room. In three days the skin over the dorsum of each foot and ankle became affected similarly to that on the arms. It is interesting to note that the child's feet were near a window where a partly drawn curtain allowed the light to play upon them.

Eight days later, the child became very listless. A definite stomatitis and otorrhea were evident. There was no diarrhea, but he could retain very lit-

9. Barber, H. W.: "Hematoporphyrin Studies in Hydroa Aestivale," Brit. Jour. Dermat., March, 1924, p. 119.
10. Pacini, A. J.: "Outline of Ultraviolet Therapy," p. 179 (1923).
11. Jobling, J. W., and Arnold, Loyd: "The Etiology of Pellagra," Jour. A. M. A., February 10, 1923, p. 366.

tle nourishment besides orange juice. The dermatitis had extended from the pubis over the penis, scrotum and inner sides of the thighs, and changed into a raw, weeping condition. The dermatitis on the face and forearms showed involution, many areas of normal skin being seen in the lesions. No hematoporphyrin studies were made. The child was taken back to his home soon afterwards and was not seen again. Recently, the mother informed us that the skin trouble lasted until August, 1924, a week before his death, which was attended with convulsions.

The case presents an acute dermatitis which was precipitated by exposure to sunlight. The history of having had only an erythema of the ears and cheeks with vesicles each of the two previous years, suggests that the boy had hydroa aestivale vacciniforme. This condition is characterized by scarring. However, the mother stated that there was never any scarring even after the attack as pictured. The last attack, as described, gives us a picture of a pellagrous skin, with a stomatitis. The case, then, suggests a possible connection between hydroa vacciniforme and pellagra, both being light-sensitive conditions.

ABSTRACT OF DISCUSSION.

Dr. E. D. Crutchfield, Galveston: Dr. Lehman's excellent paper is worth a great deal to this Section. Conservative papers like this are valuable for the development of this field of therapy. The manufacturers of apparatus have made so many absurd claims, and so many of their statements have been unsubstantiated, that a great many in the profession do not feel like attempting any of this work, fearing that the work smacks of charlatanism. This form of treatment will have to find its level, just as the *x*-ray has done. The *x*-ray was at first thought to be a panacea for cancer, but we now know that it has its limitations.

There may be variations in the effect produced by different makes of instruments. We know that ultraviolet light has a great influence on calcium metabolism. Certain individuals will react differently since some are more sensitive than others. We use the Kromayer type of lamp and find it indispensable in the treatment of certain skin diseases.

NONMALIGNANT UTERINE NEOPLASMS, WITH SPECIAL REFERENCE TO RADIUM TREATMENT.*

BY

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It may be said without fear of contradiction that no one has succeeded in framing a satisfactory classification of uterine neoplasms other than the time-honored division, benign and malignant. Proof is positive that both benign and malignant growths have definite histological characteristics, but there are intermediate stages which cannot be sharply defined in relation to any specific structure. Tumors varying in consistency from calcification to almost fluid, may be found in the same case and their response to different forms of treatment would depend largely on their consistency. For example, a calcified tumor may be found among multiple fibroids in the same woman, while another tumor as soft as a ripe fig may be found, and still another as viscous as jelly. The soft, viscous type of tumor would probably recur after removal by operation, but not after irradiation. The soft figlike tumor would disappear without fear of recurrence, under irradiation or after complete removal by operation. The calcified growth could in all probability be removed without difficulty by operation and without fear of recurrence, and would not respond to irradiation. This unusual condition is found more often in women under thirty-five years of age, and is seldom diagnosed before operation. The one characteristic possessed by all types of fibroids, however, is a well developed capsule, a structure of vital importance to the life of the tumor.

A small subperitoneal fibroid may exist for many years without increasing in size or giving rise to symptoms. Some fibroids produce no symptoms and decrease in size after the menopause. Others take on unusually rapid growth at the menopause, and in many cases the presence of the fibroid delays menopause. If, however, an uterine tumor is associated with menorrhagia or metrorrhagia, or with pressure symptoms, treatment should be instituted.

In benign uterine growths, as in malignant ones, the chief methods of treatment, operative, *x*-ray and radium, are not antagonistic or exclusive one of the other, and the cases for each method of treatment are fairly well defined. After a definite diagnosis one should not have difficulty in deciding the treatment of preference. Each has a field in which it is clearly the best treatment; the edges of the field, however, overlap in many cases. The method of treating benign uterine tumors depends largely upon the age of the patient, the patient's physical condition, the local symptoms present, and the size of the tumor. The method of treatment should control hemorrhage, remove the tumor or check its growth, impair the function of the organ as little as possible, and with a minimum mortality risk.

Myomectomy meets all these requirements except the last, and its possibilities should be considered in all cases of benign uterine tumors causing symptoms in women under 35 years of age. While the mortality rate following myomectomy ranges from ½ to 1 per cent in clinics conducted by our most skilled surgeons, it is less than 1/10 of 1 per cent following the use of radium. Radium rays meet all these requirements except the third and their possibilities should be considered in all patients over thirty-five years of age. Sufficient radium to produce a per-

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

manent effect on the growth of the tumor, would in most instances destroy the principal function of the organ. Hysterectomy should be considered only in the cases in which radium is contraindicated and in which myomectomy would be impossible.

No abdominal operation has reached a higher degree of technical perfection nor has given more satisfactory postoperative results than hysterectomy as usually performed for benign uterine tumors. For this reason it is difficult to convince the surgeon that any other method of dealing with these tumors can compete with surgery. Any other method of treatment, to be accepted, must be shown to offer permanent relief and to be safer than operation. Radium will fulfill these requirements in selected cases.

Since I am devoting my practice to neoplastic diseases and radium-therapy, it may be inferred that I am overenthusiastic about the use of radium, and for that reason I wish to stated that 37 per cent of patients with nonmalignant uterine tumors, applying for radium treatment, were advised to have abdominal sections, and were referred to other surgeons.

In adolescent girls and young women radium is a very dangerous agent. Maternal possibilities and the sexual life are both of paramount importance. However, there are some few cases of excessive bleeding in this group, in which radium carefully used will give most gratifying results, if applied by one acquainted with the action of radium rays and experienced in their application. Small, repeated, graded doses, rather than a large single dose, should be used, for example, from 25 to 50 mg. for from 3 to 6 hours with standard screening for the first treatment, not to be repeated under 3 weeks, should be safe.

In the group of women between 35 and 45 years of age, neither of these two important functions are as much endangered. The majority over thirty-five have settled the question of a family and the sexual habit has been so well established through the spinal centers that cessation of ovarian function will have but little effect. Again, 20 per cent of all women over 35 years of age have benign tumors of the uterus, most of which are fibromyomas, and 30 per cent of all women with myomatous uteri are found to be sterile; this, added to those who are congenitally sterile—10 per cent—reduces the chances of sterilization of women over 35 years of age to a small possibility.

During the climacteric period and in women above 45 years of age, radium is without doubt the treatment of choice. Only in cases in which radium is definitely contraindicated, should it not be used.

Successful use of radium in nonmalignant neoplasms of the uterus is largely dependent upon four factors: First, accurate diagnosis; second, properly selected cases; third, correct graduation of doses; fourth, correct application of radium. We have found the results of radium treatment uniformly good in 87 cases of nonmalignant uterine tumors. We were disappointed in but two cases, neither of which received sufficient radium. However, we used especial care to observe the four points above mentioned.

In all of these cases, the radium salt used was contained in either 5 or 10 mg. noncorrosive needles, or in 25 or 50 mg. platinum tubes. In uteri up to three inches in depth, 50 mg. platinum containers were used for from 14 to 24 hours. In depths beyond three inches from 50 to 100 mg. of radium were used in flexible tandem for from 14 to 24 hours. In some cases two intrauterine applications were made, and in a few "cross-firing" from the abdominal wall was practiced. Platinum containers were screened with aluminum shells of 1.5 mm. wall thickness. Other containers were screened with brass lined aluminum shells. The period of hospitalization ranged from one to five days.

TABLE I.

CONTRAINDICATIONS TO THE USE OF RADIUM IN BENIGN UTERINE TUMORS.

1. Tumors larger than a three and one-half months' pregnancy.
2. Tumors rapidly increasing in size and those which have undergone calcareous changes.
3. Tumors of any size, complicated by pelvic inflammatory diseases or by pressure symptoms.
4. Pedunculated tumors, whether intra or extra-uterine.
5. Submucous tumors which so distort the uterine cavity that introduction of a radium applicator well into the fundus is prevented.
6. Tumors in women presenting cachexia out of proportion to the loss of blood.
7. Age does not necessarily preclude the use of radium in all cases. It can be used in the young for the purpose of checking serious hemorrhage. Elderly people do not react badly to the use of radium.

Submucous growths of the uterus, while responsive to radium rays, owing to their tendency to infection and sloughing after intrauterine trauma, should not be irradiated routinely. However, if the tumors are small and not projecting into the cavity in such a way as to obstruct the introduction of an applicator, radium is a safer treatment in the cases that have bled to a low ebb, than operation. A small dose in a small applicator for even a few hours will check hemorrhage and the patient will rebuild so that an operation is safe.

Adenomyomata are dangerous tumors when permitted to grow. According to Cullen, the great majority of adenomyomata have their origin from the uterine mucosa; they form in the middle layer of the uterine wall and are diffuse in character. An

adenomyoma located in the recto-vaginal septum, a favorable place for them, is a most difficult tumor to completely remove. The lack of a tumor sack as a guide and the almost uncontrollable hemorrhage makes the operation very taxing on both the patient and surgeon. To the surgeon who has had personal experience in operating on adenomyomata buried in the recto-vaginal septum, I believe radium would appeal. It will stop hemorrhage and check the growth, and is much safer than operation in these cases. I know of no benign condition where radium should receive a greater welcome, even though an operation is to be performed. In many instances, much tumor substance is left clinging to the bleeding walls which radium will destroy without fear of harm, if left in the tumor bed at the operation.

Large myomata should be treated by myomectomy, when possible, in child-bearing women, or by hysterectomy in the absence of contraindications, but in the cases that have hemorrhaged to a dangerous degree, radium will arrest bleeding and the patient will rebuild so that an operation can be performed later with much less risk. It is unsafe to give sufficient radium to insure autolytic tumor cell destruction; especially is this true in large irregular shaped tumors, on account of possible necrosis and sepsis.

In all cases of uterine growths, if in doubt as to the diagnosis, we dilate the cervix and curette under gas anesthesia, insert radium to the top of the fundus and complete the radium treatment for benignancy while waiting for a laboratory report, though we do not decide upon final treatment until the laboratory report is received. Should the report show malignancy of the body, unless there are physical contraindications, we advise hysterectomy. The radium used in no way prejudices either immediate or late surgery and helps to check the possible spread of malignancy at the operation.

About 4 per cent of suspected uterine myomata are found to be cancerous. A great majority of these are diagnosed at a previous curettage; many of them should be diagnosed from the clinical history before reaching the operating table. When the menstrual flow is prolonged, even over many days, and though it be profuse, but with well defined intermenstrual periods in which there is no bleeding or foul discharge, one is reasonably safe in diagnosing the condition as nonmalignant. On the other hand, "intermenstrual spotting," which soon develops into a continuous flow with an increase at the regular menstrual time, is almost always the result of cancer of the body. In the case presenting anemia out of proportion to the small amount of blood lost, and with decided toxemia, a degenerating tumor should be considered, and this speaks against the use of radium.

Reports have been published, in which fibroids of apparently simple structure have disseminated and destroyed life. These reports, however, should be accepted with the knowledge that the uterus is occasionally the seat of true sarcomata which in their early stages present the clinical characteristics of fibroids. It is difficult to decide between the slow-growing spindle cell sarcoma, the fibrifying sarcoma and the gelatinous fibroid, and one cannot argue from the present knowledge that innocent tumors do undergo transformation into sarcomata. The more tumor histology is studied, the more evident it becomes that the exact line of differentiation is obscure. This has been very definitely revealed in the case of dermoids. Prior to careful laboratory studies, few tumors had a better reputation for innocency than dermoids. Now we have learned that the less typical type is prone to disseminate. There is no positive evidence on record that innocent fibroids take on sarcomatous degeneration unless complicated by septic infection. Most surgeons leave the cervix when operating for benignancy of the fundus and there are no definite convincing records of sarcomatous changes in the stump. We have on several occasions irradiated a cervical stump after the fundus had been removed several years, on account of fibroids in the stump. There can be no substantiated objection to the use of radium even were such fears well founded, for sarcoma reacts well to radium rays.

It is just as unfair to compare the operative mortality statistics of today, on nonmalignant neoplasms of the uterus with those of irradiated cases, as it is to compare the operative mortality statistics for malignancy of the uterus at the present time, with those before the days of radium. But few surgeons operate on cancer of the cervix today unless they feel confident that the malignancy is confined to the cervix, which generally means early cases and good surgical risks; therefore, the operative mortality of today is far more encouraging than that of yesterday when all cases were being operated on. The opposite is true of benign neoplasms of the uterus. The benign growths are operated upon after midlife, only when large or when complicated with other pelvic or abdominal pathology, and myomectomy, which carries a higher mortality risk than hysterectomy, is generally performed in younger women.

SEQUELAE.

Pain, when present before irradiation, is not as a rule relieved although the bleeding stops. Many times, more or less pain in one

hip or the other follows for a few weeks, but in no case have we found it severe. An occasional aspirin tablet will give relief.

Leukorrhea is the exception rather than the rule and the discharge is scant and of short duration.

Nausea occurs in many cases during the time that the radium is in place but disappears upon the removal of the applicator from the uterus. It is often difficult to determine the cause of the nausea. Many patients have had hypodermics of morphine and others have had gas or ether anesthesia. However, in no case have we had vomiting of any consequence.

Recurrence of Bleeding. In older women, where a permanent menopause was desired, we had but one case to return bleeding. This case was treated early in 1921, before I was brave enough to give full doses. She returned a few weeks ago and we repeated the application, though in larger quantities and for a longer time. In younger women, by using graded doses one may promise return of the menses after four to nine months, dependent upon the application made.

Nephritis has followed the use of radium in none of our cases.

Nervous manifestations, that often accompany the menopause, whether artificial or not, have been found to be most pronounced in women of unbalanced nervous mechanism, and we believe that the temperamental and nervous stability of these women has greater bearing on the results than the mere question of age. However, we are careful never to disturb the young woman's menstrual function for more than a few months.

SOME INTERESTING GYNECOLOGICAL PROBLEMS.*

BY

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In all probability, professional men have attached themselves too rigorously to their avowed anatomical regions and have taken entirely too seriously the results of pathological conditions affecting individual groups of organs. They have failed to take fully into consideration what Blair Bell has called "correlation of functions," and have lost much by this.

In the light of the present knowledge of physiology, those dealing with the generative organs of the female must be quite conversant with everything that influences the general condition of the patient, as her metabolism is influenced by her ductless glands. So it is difficult to determine whether one is dealing with a primary or a secondary condition because the mind, body, and reproductive system may show the influence of a morbid process. As an example, in many women after the menopause there is an unusual degree of atrophy of the thyroid, which occurs with the atrophy of the ovary. The melancholy and depression are usually lessened by thyroid extract.

Two types of associated thyroid enlargement and menstrual disturbance are found in girls. It is thought by careful investigators that such enlargements are due to a primary lesion of the thyroid persisting between monthly periods with profuse menstruation; or the enlargement may be due to a temporary state of hyperplasia, with lack of ovarian activity calling upon the thyroid for supplementary action. In the first type of these cases, reduce thyroid activity, administer calcium salts and give infundibulum injections; in the second type, thyroid and ovarian extracts are useful.

Until recently, physiology, biology and biochemistry have been neglected and great stress has been given to the clinical phase of gynecology and surgery. Consequently, many of the fine points necessary to a proper understanding of the symptom complex have been lost. May I ask: "To what factors is due the fusion of the Mullerian ducts?" "What force imbues the fertilized ovum of man with maleness or femaleness?" "Do the genital functions of the ductless glands come into being only at the beginning of puberty?" "What leads to this awakening?" "Do we know the nature of menstruation?"

Blair Bell believes that menstruation is an excretory process involving the principal elements required during pregnancy for the building up of the fetus, and during lactation for formation of milk, as is made evident by the calcium metabolism. Little is known of the factors involved in the climacteric, and of fertilization and conception. It has been said by Weisman and others that the essential biological functions of all living creatures are assimilation and reproduction, and that the individuals exist only to reproduce. They further insist that the metabolism of the body is inseparable from the genital metabolism and that the sex glands generate the most potent forces in life.

These introductory remarks will explain my effort to call to your attention some facts connected with the practical side of gynecology. I hope that the references that I make will be of sufficient interest to cause a further study of the scientific factors which unquestionably exert great influence upon the clinical aspect of this interesting work.

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

There is nothing especially new in the subject matter that I am presenting, but some of the procedures are not generally used.

Steenbach of the University of Wisconsin, a worker in agricultural chemistry, has shown after extensive experimentation and careful study, that the effect of light upon the calcium and phosphorus equilibrium in mature lactating animals is very decided. Light is definitely valuable and certain wave lengths of the spectrum are able to duplicate in effect the result secured through the administration of such antirachitic food stuffs as codliver oil, green plants and egg yolk. Sunlight is probably of more practical value in relation to calcium and phosphorus assimilation in cattle than green plant tissue. Let us carry this thought further and apply it to our work. I am positive that the value of sunlight in septic conditions or in malnutrition from any cause has been underestimated. My clinical observations have taught me that nothing can be so beneficial to slowly convalescing cases as quiet and sunlight. From the literature concerning the ultraviolet light it appears that this is of special value in influencing the storage of calcium in the blood-stream.

Non-specific protein therapy has recently excited a considerable amount of interest and, apparently, in the hands of a number of investigators, has accomplished some wonderful results. Gellhorn in his exhaustive study of this subject states that the possibility of recharging the cells with energy, is the basis of protein therapy. The protein stimulates cells to greater activity and activates the protoplasm quite like fresh air, sunlight, water, heat in various forms, and other means of producing hyperemia, but the protein injection seems to exert its influence upon all the cells of the body with very definite action upon those which have been weakened by disease. These diseased cells respond more readily to stimulation than do normal cells.

In the past, the basic principle has been that the organism in its defense against bacteria must be supported by specific means. Protein therapy rests upon a non-specific basis, owing to the introduction of substances which have no relation to the infection. To get the scientific and correct estimate of the process involved in the improvement following protein injections, it would be necessary to refer to innumerable scientific papers upon the effect on calcium metabolism, the changes in nitrogen metabolism, the increase of blood-sugar and fibrinogen, and many other changes, which follow the injection of these proteins.

Let us consider, however, the more practical things connected with the reaction. There is usually a chill, often high fever, occasionally a very slight elevation of temperature, nausea, headache, malaise, transitory leukocytosis, and, in addition to these constitutional manifestations, there are focal reactions, pain and swelling. These are of short duration. A great many protein substances have been used, normal blood, horse, sheep, etc., immune sera such as the anti-streptococcic, diphtheria and tetanus, antitoxins, pleural fluid, egg albumen, peptone, leukocytic extract, colloidal metals and milk, and also turpentine which latter is non-protein. Of all of these, milk is certainly the most extensively used. It is sterilized by pasteurization or by boiling in a water bath for ten minutes. There are a number of pharmaceutical milk preparations on the market, but in all probability fresh milk is better. Casein is on the market in sterile ampoules, for intravenous administration. Some authors suggest that fat-free milk will not produce a reaction, and hence the milk is centrifuged and only that below the cream line used. The site of injection is in the gluteal muscles, the initial dose being 5 cc.; and the standard dose of 10 cc. being reached in the second or third injection and maintained through the course of treatment. The interval between the injections is from 3 to 5 days, depending upon the reaction and the character of the patient. The average number of injections in the Gellhorn series was about six. If continued indefinitely, "protein cachexia" is produced. Apparently, Gellhorn has had very satisfactory results in puerperal infections.

Newman, in New Orleans, has been following the Gellhorn technique in his clinic with some satisfactory results, but his house physician admitted to me that some of the cases had apparently not been benefitted. The literature shows that this form of therapy is useful in old pelvic infections, particularly those of gonorrheal origin. The tubes, the uterus and the bladder appear to be favorably influenced, while the ovaries do not seem to be benefitted. It seems to be generally conceded that in puerperal infections this form of treatment should be tried, as apparently it is well established that resistance is greatly enhanced. It is contraindicated in cardiac decompensation, diabetes and alcoholism. The treatment requires a great amount of judgment and it bids fair to be of considerable benefit in acute infections as well as in chronic inflammation. Limited personal observation of this treatment has made me feel that it will be of great benefit.

While considering the injection of foreign material in your efforts to combat infection, you should not overlook mercurochrome, the drug which was popularized by Dr. Young of Baltimore, and which has, in the past year, been used extensively and with varied degrees of success. Apparently, blood-stream infections are somewhat controlled by the intravenous injection of mercurochrome; and as puerperal septicemia is such a serious disease and so frequently fatal, almost any measure in such a case is justifiable. From 25 to 30 cc. of a one per cent solution of mercurochrome for each one hundred pounds of weight has been generally accepted as a basis for dosage determination. The reports in the literature seem to indicate that the drug gives best results when the infecting micro-organism is the staphylococcus or the streptococcus hemolyticus. Only slight improvement has been noted in pneumococcic infections, and it seems to have practically no value in combatting the streptococcus viridens. Hirst reports 17 cases of streptococcic puerperal infection with 45 per cent of recoveries. However, no statistics as to the severity of the infection or the condition of the patients were given. It has been suggested by Dr. Young that gentian violet, intravenously, is of even greater value in staphylococcic septicemia. In dealing with this drug, it must not be forgotten that the effect upon the kidney must be carefully watched, as a number of cases of mercurial poisoning have been noticed, and anuria has been produced.

Preoperative and postoperative dehydration are conditions which should be carefully watched for, and every effort made to overcome their serious influence upon the economy.

A physiological review has shown that a diminution of ten per cent of the water content of the body results in serious disorders, while twenty per cent reduction results in death. Since these experiments were made under normal conditions, such reductions of water content would be much more serious in disease, where a greater need of water exists. This is especially true of intra-abdominal conditions involving the peritoneum which suffers a destruction of its smooth surface, resulting in deficient peristalsis and adhesions, and consequently, in less absorption from the intestines. To combat this condition, the Fowler position, the Murphy method of fluids by intestine, gastric lavage and starvation have proven very valuable.

The calcium content of the blood in last part of pregnancy is usually diminished, so that it is frequently advisable to administer calcium.

"Intermittent aspiratory hyperemia," as suggested by Dr. Young, is lauded by Dr. Bradley of Houston, Texas. This intermittent hyperemia is produced by a vacuum applied to the cervix. Dr. Young also states that pronounced contraction of the uterine musculature is induced, bringing about an improvement in many pelvic conditions. Marked improvement was noted in infections of the cervix, and subinvolution cases seemed to respond well to the treatment. The cervix left after hysterectomy, which so often is large and continues to discharge mucus, is frequently benefitted by this treatment. The instrument is said to be very effective in clearing the canal of mucus so that the application of medicine may be effective.

Probably no conditions have caused as much worry and as much useless treatment as chronic infections of the cervix, which are found persisting where there have been lacerations of the cervix or Neisserian infections. I am a strong advocate of the use of the cautery in such conditions. The electro-cautery with very small tips or even a knife-blade tip is preferable, but I find that the Paquelin cautery is nearly as convenient and serves the purpose about as well. The application of this cautery can very easily be done in the office. There is very little pain connected with it unless the vaginal mucosa or the mucocutaneous margin is touched. Lacerations with the accompanying erosion and cystic degeneration are wonderfully helped by careful cauterization. Two or three linear marks on each lip, with puncture of all cysts and a thorough cauterization of the entire cervical canal generally produces a very decided diminution in the size of the cervix, and a marked improvement in the leucorrheal discharge. Cauterization of the cervix is ineffective in the treatment of leucorrhea if infected tubes are not removed. This method of treatment should be attempted because chronic cervicitis is probably concerned in the development of cancer of the cervix. Do not overlook the possibility of cervical infection being the source of general systemic infection, probably as harmful as other points of focal absorption, such as diseased tonsils or teeth.

I cannot refrain from referring to some wonderful work done by Dr. Percy with his heavy cautery, using low temperature for a long period of time. Dr. Percy, like almost any enthusiast, sees more in his suggestion than others who attempt to follow his technique. I have had, in some instances, really excellent results following application of the

Percy cautery in non-operable carcinomatous involvement of the cervix, and unfortunately, fully 50 per cent of carcinomata of the cervix are inoperable when they are first presented to the clinician. The Percy cautery will occasionally enable one to clear up an enormous cervical growth so that the radical operation may be attempted. The application of the cautery will change the character of the cervical canal so that *x*-ray or radium may be more effective. Ligation of the iliac vessels to cut down the blood supply is of decided benefit in the use of the Percy cautery in these serious conditions.

If you are not satisfied with the results from the use of the cautery in extreme conditions, there is a surgical procedure which I think offers much more than the ordinary trachelorrhaphy or the Schroeder operation. I refer to the Sturmdorf operation for removal of the cyst bearing area of the cervix. This is not a difficult operation, but requires some care in properly placing the two essential sutures, one in each lip by which the detached vaginal mucous membrane is brought into the cervical canal. I commend this operative procedure to you.

The chief gynecological symptoms usually complained of are (1) disturbed menstruation, (2) leucorrhea and (3) pain or pelvic discomfort. Menstruation is markedly influenced by calcium metabolism and is often a factor to be reckoned with in considering the leucorrhoea and pelvic pain. General metabolic factors account for menstruation and calcium seems to play an important part in the control of menstruation. All of the hormonopoietic glands seem to be factors in normal sexual functioning for increased calcium metabolism seems to be a sex characteristic of the female and is under the direction of the ovaries. Uterine and other muscular contractions depend to a considerable extent upon the calcium salts circulating in the blood.

During menstruation large amounts of calcium are excreted and in this way the metabolism is prepared for the demands of reproduction. Ringer's work upon heart muscle shows that calcium lactate slows and steadies the heart, controls the vasomotor system, and lessens hemorrhage; thirty grains are given on alternate nights for menorrhagia. It is used also in amenorrhoea. To explain this apparently paradoxical use of calcium, it must be recalled that menstruation is largely dependent upon the excretion of calcium, so that it is often necessary to supply calcium in order that enough may be present to start menstruation. In hemorrhage, the organism is able to start menstruation, but a great fall in the calcium content of the blood is often noted, and the organism under these circumstances is unable to supply enough calcium to stop the function, as a cessation depends upon a reaction whereby calcium is again accumulated in the blood, influencing the musculature and stopping bleeding through the endometrium.

In the work of Tice, of the University of Illinois, reference is made to researches which confirm the view that the parathyroid glands enable the blood and the nervous system to utilize the available calcium salts by keeping them soluble. It is thought by many that these glands operate with the thyroid, while there are others who disagree with this. It is probable that both glands unite in the defensive process in the body and aid in carrying on the calcium metabolism.

Restoration of function in seemingly hopeless cases of severe pelvic inflammation has been noted so often that I feel that a much more careful study of these cases should be made before radical or mutilating surgical procedures are resorted to. As an example, the following case report is given:

CASE REPORTS.

Case No. 1.—Mrs. H., recently operated upon at the City Hospital, gave a history of repeated criminal abortions. She came into the hospital quite ill, the result of a very severe hemorrhage. She had a very marked abdominal condition which indicated the exacerbation of an old inflammatory condition. It was thought advisable not to do any abdominal work but to explore the uterus carefully. We found protruding from the cervix a mass of tissue, which appeared to be placental and which proved to be placenta upon microscopic examination. A week later, her abdomen was opened and an enormous pus tube on the right, involving the ovary, was removed. The tube and ovary on the left were also severely infected and bound down beneath the broad ligaments in the cul-de-sac. It seemed from inspection of this abdomen that it would have been utterly impossible for impregnation to have taken place.

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ABSTRACT OF DISCUSSION.*

Dr. Frank Beall, Fort Worth: Since radium was first introduced, the tide is falling back to surgery and this makes one wonder if radium is always best. It is wise to always select the cases, because great harm can be done by treating uterine conditions that are not suitable for radium therapy. A distinction in the size of the tumor should be made; the treatment of large tumors will produce too much toxemia from absorption. Dr. Norsworthy spoke particularly about turning over to surgery the cases that showed too much cachexia. The fibroid cases that are treated with radium will show too much toxemia to be safe for the patient. There is some risk too in the cases that have large growths, for a piece may be left behind which will allow these patients to continue hemorrhaging. Of two cases that were treated with

*Papers of Drs. Norsworthy and Dunlap just preceding.

radium, one came to operation with an acute abdomen, which was found to be full of blood from a profuse hemorrhage. The other case had a parametritis. These results will make us think about selecting the cases more carefully.

As Dr. Dunlap has pointed out, we should all pay more attention to the cases instead of just to the mechanical part of surgery. Some men may do too much radical operating, but many of these patients will have pus pockets and require radical procedure. Many of these patients do get well and many more would if more time was given them and more attention was paid to the calcium chloride needs of the body, and to other inflammatory conditions above the navel. Dr. Dunlap's paper is a very valuable one in calling our attention to the physiological studies that should help us.

Dr. DeWitt Smith, Dallas: Many times we learn more from our mistakes than from our successful cases. Recently, I had a case similar to cases Dr. Norsworthy has discussed. Briefly, a virgin, 38 years of age, and quite fat, had been bleeding for three months. She had no pain. After a careful examination of the scrapings from the uterus, the case was diagnosed as cancer. Three days later a hysterectomy was done. Examination of tissue removed showed an intramural fibroid. This woman, I think, was subjected to an unnecessary operation. This was a case in which radium would have been the treatment of choice.

Dr. Norsworthy (closing): The cases reported by Dr. Beall were not suitable for radium treatment. As stated in my paper, care in diagnosing and selecting cases for radium treatment is paramount. Dr. John G. Clark of Philadelphia, finds about one-third of non-malignant uterine tumors diagnosed in his clinic to be suitable for radium treatment. A great majority of my cases were referred for radium treatment for various reasons. I accepted less than two-thirds as suitable.

If in doubt as to the size or locality of the neoplasm or as to the condition of the other pelvic organs, we examined the patient under gas or ether before deciding for or against the use of radium. In all cases we use the curette for laboratory specimens, and often delay opinion as to final diagnosis and treatment until laboratory reports are at hand.

Our technique depends upon the depth and shape of uterine cavity. The uterine sound is used for that purpose. Our preference is the short shell applicator as described. A tumor on the fundus cannot be satisfactorily reduced by non-flexible applicators. Tumors producing irregular outline of the uterine cavity cannot be homogeneously radiated from one long non-flexible applicator. Short applicators linked together with movable joints are necessary. It is probable that the lack of properly fitting applicators has been the cause of many failures in reducing uterine tumors to the inactive state, in the hands of some.

Radium has proven a more satisfactory treatment in non-atrophied cervical stumps following hysterectomy than any other method we have used. The Percy cautery, the electro-cautery, and all other forms of cautery, have been almost replaced by radium and electro-coagulation, in conditions indicating active destruction of tissues in and about the vaginal tract.

Dr. Dunlap (closing): It is fortunate that we have problems which stimulate us to further investigation; there are many things to be worked out yet. Dr. Norsworthy gets good results with radium and those who rely upon surgery are satisfied with the results of hysterectomy and myomectomy. To do the best for our patients we must have a complete understanding of the functions of the female generative organs, as there is a correlation of function and physiological action. We must have an understanding of these fundamental principles, which can be obtained only by experimental laboratory work, especially that which deals with modern physiology. It is quite evident that without due regard for modern physiology we cannot hope to have much advancement in the correct treatment of pathological conditions of the female generative organs. All this requires adequate equipment and the best brains to work out the problems which can be approached from the clinical side, in order to give us those procedures that will work to the best advantage of the patient.

TREATMENT OF FUNCTIONAL DYSMENORRHEA.*

BY

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Dysmenorrhea is a term loosely applied to all forms of general suffering accompanying the menstrual process. It is not a disease *per se* but a symptom of an improperly functioning physiological condition. The term is classified many ways by different writers according to the supposed etiology of the condition. In this paper I shall attempt no classification other than that I have chosen to call those cases functional which present no definite demonstrable pathology. Normal catamenia should be painless and not attended by discomfort—a condition but rarely if ever met with at the present day in civilized countries. Indeed, dysmenorrhea is so common that all text books make an effort to define a kind of menstrual molimen. The effects of civilization, and more especially of the complex conditions of our modern life, have been to intensify nervous excitability to such an extent that normal menstruation is now common only among the savages.

Many theories have been advanced for the causes of this condition, quite a few of which are plausible and supported by good evidence, while many are fantastic and untenable. "It has long been recognized that dysmenorrhea is not necessarily associated with a demonstrable abnormal condition of the reproductive organs. On the contrary, dysmenorrhea of the most severe and obstinate character may exist in the absence of any discoverable local disease whatever, while some cases of advanced disease in the uterus and appendages are entirely free from pain in menstruation." (Kelley).

Bland in "Medical and Surgical Gynecology, 1924" says: "Functional dysmenorrhoea is undoubtedly the most common type

*Read before the Central Texas District Medical Society at Cleburne, July 15, 1925.

and it is found in women in whom no gross lesion can be demonstrated in the organs of the pelvis."

Having tried briefly to explain what I mean by functional dysmenorrhea, I will proceed with the treatment of this type of cases. Of course, careful gynecological examinations, both physical and clinical, should be repeatedly carried out to exclude the presence of any definite gross pathology within the pelvis. Cases that are obviously surgical should be operated without delay, where it is apparent that relief can be expected from these distressing symptoms by surgical intervention.

The treatment of functional dysmenorrhea naturally resolves itself into two distinct classes: First, treatment during the attack, aimed solely at the relief of the symptoms, and second, treatment between the attacks, intended to prevent recurrence and effect a permanent cure. In taking up the first phase of the treatment, I have no new theory to propose, no panacea to recommend—the time tried remedies used in this condition are familiar to every practitioner of medicine. They have been used empirically for many years with varying degrees of success. A few are endowed with some therapeutic value while the majority are absolutely useless. Space forbids their enumeration here.

All patients suffering with dysmenorrhea should be confined to bed during the attack and complete physical and mental rest insisted upon. Such hygienic measures as proper bathing and regulation of the bowels, must receive attention. The most comforting local measure is the application of a hot water bag over the pubes, and, while apparently a paradox, yet an ice bag applied over the sacrum sometimes gives almost immediate relief. (Bland). Hot sitz baths and hot vaginal douches will often be of great benefit.

There is no specific drug for painful menstruation. If associated with extreme nervousness, sedative agents in the form of bromides should be given. The most useful remedies in my experience have been atropin, papaverin, antipyrin, benzyl-benzoate, bromides and organotherapy (thyroid, pituitary, ovary and adrenalin) as the case may indicate. An old time remedy I have frequently employed since reading F. C. Coley's paper in the *British Medical Journal*, 1922, is Pulsatilla, with apparently good results in some cases. Cases presenting nasal pathology are often benefited by cocainizing the so-called genital spots in the nose, after the method of Fliess. This treatment is especially successful in the type of dysmenorrhea that is characterized by pre-menstrual headache, nausea and colic at the onset of the flow. The genital spots are easily found, if present, by applying epinephrin to the mucous membrane—when the genital spots will remain red and engorged while the rest of membrane is blanched. In passing, the routine use of opium and whiskey in these cases is mentioned only to be condemned. Opium or its derivatives should be used only as a last resort in cases of excruciating pain and then it should be administered in such form that the patient will not know what she is getting.

Taking up the second phase of the treatment, namely, the prevention of recurrences and permanent cure, I come to the burden of this paper. Dysmenorrhea is a reproach to modern gynecology. While it is one of the more common conditions met with by the gynecologist, its pathology to a great extent is, as Marion G. Sims said sixty years ago, "Yet to be written." There is hardly any subject in gynecology in regard to which less advance has been made, either in pathology or in treatment, than functional dysmenorrhea. The treatment which in the vast majority of cases is adopted at present, namely dilatation of the cervix, is essentially what was recommended over 2,500 years ago by the Father of Medicine, himself, Hippocrates. Incisions of the cervix, which are just another method of achieving the same result, were practiced by Sir J. Y. Simpson, Emmett and Sims in the days of the infancy of gynecology. Until we come to realize that each case is a separate problem within itself and must be worked out as a separate and distinct proposition, throwing empiricism to the winds, we shall continue to make little progress.

As I have previously stated, there are a great many theories as to the cause of functional dysmenorrhea. They need not be mentioned here, except incidentally and in justification of the treatment proposed.

Dysmenorrhea is frequently a disease of faulty hygiene, upbringing and surroundings. These patients are thin, anemic, poorly developed individuals with weak abdominal muscles, absent abdominal breathing and faulty posture; they are constipated and follow sedentary lives, with little exercise and fresh air. Naturally, in such cases the uterus is often arrested in its development and has a feeble musculature easily exhausted if given much expulsive work to do. An exhausted muscle forced to continue contractions gives rise to cramps and colicky pain, true alike of the heart, gastrocnemius or the uterus. Constipation necessarily has a bad influence, for a mass of feces in the pelvis acts very much as a pelvic tumor, in-

creasing congestion. These patients can be relieved by general hygienic treatment, establishment of a correct mental attitude, correction of constipation, proper exercise in open air, proper food and attention to the impoverished states of the blood. Always examine the blood for evidences of anemia, chlorosis, etc.

Dysmenorrhea is often due to some constitutional disease such as tuberculosis or a gouty or rheumatic diathesis. Such conditions should never be overlooked: the dysmenorrhea proving its association with the dyscrasia by being entirely relieved by remedies appropriate to the general condition. A psychoneurosis as a cause for dysmenorrhea should ever be kept in mind. The patient has been told all kinds of wild stories by mothers, grandmothers and friends about how painful menstruation would be, and what would happen if she got wet while menstruating, etc. Of course, sooner or later they all get wet. These patients should be assured that their trouble is not serious and that in time they will be entirely well.

Having eliminated all surgical causes such as tumors, malposition, infantile uterine development, etc., all constitutional, hygienic, neurotic and psychopathic causes, there remains that large class of cases of dysmenorrhea in which such defects are not present, and in which the cause must be sought for in the functional mechanism of the menstrual process.

The character of pain in dysmenorrhea is suggestive of the underlying pathologic condition—a spastic, intense contraction of the uterus. This condition seems to prevail uniformly in the several types of dysmenorrhea, regardless of the cause. The pains may be of short duration or may persist throughout the menstrual period. They are cramp-like and accompanied by emotional disturbances which may be severe. The mental condition is one of unrest and apprehension, and vomiting and headache are common.

Here the trouble lies in the endocrine system. The gynecologist should have a working knowledge of the histology and anatomy of the autonomic nervous system, and its two divisions, the sympathetic and the vagus. I must mention them to illustrate my point. At the developmental epoch in both sexes with the onset of gonadal function, stimulation through the thyroid, suprarenal and pituitary by the introduction of the sex gland hormone initiates an unbalance in the vegetative nervous system and the various psychical and physical symptoms incident to this period are segmentally or generally expressed until a stabilized adjustment is effected. At this period in the young girl with inherently sluggish or deficient gonads, compensatory stress is thrown upon the thyroid, suprarenal and pituitary glands. Hyperthyroidism is frequently produced to a mild degree and the enlarged thyroid at this time of life is not uncommon; likewise in hypogonadism, thyroid swelling is always present with each menstrual period.

In the topic under discussion, viz., dysmenorrhea, there is most generally a gonadal dysfunction and essentially always a state of vagotonia, segmentally expressed through the sacral autonomic nervous system. This vagotonic state is always due to a resulting ultimate compensatory exhaustion of thyroid or suprarenal, or both, or a compensatory overaction of the pituitary. To determine which is the case is a relatively easy matter. Symptoms of hyperthyroidism in varying degrees are now familiar to most of us. Hypoadrenia is likewise easily differentiated from hyperpituitarism.

Upon these deductions depend the therapeutic indications. The pituitary is well known as a most potent synergist to the ovary and with every menstrual period there is associated pituitary activity frequently occurring in compensation to gonadal fatigue and causing transient swelling of the pituitary to the degree of creating intracranial pressure symptoms, *e. g.*, pituitary headache, visual disturbances from pressure on the optic nerves, nausea and vomiting, and either general or pelvic vagotonic symptoms, the latter being characterized dysmenorrhea.

Gonadal dysfunction is usually associated with definite physical markings. Torsion of the teeth and absent lateral incisors or canines are often indices of such conditions. Atrophic areas or white spots on the finger nails are always associated with gonadal dysfunctions. Abnormally large hips and lower extremities, disproportionately greater in circumference than the arms and thorax, present a structural type created by ovarian dysfunction. From simple observation one may be greatly enlightened as to the underlying physiological disturbances which are productive of definite symptoms. The vagotonic state produces contraction or spasm of the uterine muscle, especially that of the cervix.

Ovarian whole gland substance is indicated when hyperpituitarism exists; the stress being thus removed from the pituitary, the high blood-pressure lowered and the vagal stimulation reduced. When thyroid exhaustion has occurred, as it does in thyroidal types when effort is made to compensate for ovarian deficiency, administra-

tion of some preparation of thyroid gland will often effect results when used alone, or it may be necessary to combine it with ovarian substance. In hyperthyroidism, frequently seen in the early stages of thyroid over-compensation, administration of ovarian substance will often relieve the stress and allow the thyroid to return to its state of normal function. Exhaustion states following prolonged illness, psychic and physical shock reactions such as create suprarenal gland exhaustion, thus causing the vagotonia due to hypoadrenia, are also frequent causes of dysmenorrhea. In such cases the associated low blood-pressure incident to the hypoadrenia indicates that preparations of both the suprarenal and the thyroid glands should be used to stimulate the lowered sympathetic system and thus reduce the vagotonia. In dysmenorrhea of this origin, the administration of ovarian gland substance is not indicated, as the gonads are not primarily at fault.

These few examples will serve to illustrate the point I am driving at; do not use organotherapy empirically but study each case as an individual problem. Upon the proper selection and correct analysis of cases depends the successful outcome of endocrine therapy.

The objection may be properly raised that a great deal of endocrinology is theoretical and as yet unproven. It may be said, however, that up to the present time no other theory so satisfactorily explains the phenomena of dysmenorrhea or is so encouraging in the promise of a remedy for this distressing condition, and glandular therapy is at least as justifiable as the surgeon's exploratory operation.

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Bismosol.—A solution of potassium sodium bismuthotartrate (containing 35 per cent bismuth), 10 gm.; piperazine, 0.3 gm., in an aqueous solution of glucose sufficient to make 100 cc. Bismosol is proposed as a means of obtaining the systemic effects of bismuth in the treatment of syphilis (Bismuth Compounds, New and Nonofficial Remedies, 1925, p. 73). Bismosol is administered intramuscularly. It is supplied in ampules containing 1 cc. Powers-Weightman-Rosengarten Co., Philadelphia.

PULMONARY SYPHILIS.*

BY
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It is the object of this paper to report a case of syphilis of the lungs and to discuss briefly the bearing of pulmonary syphilis on the diagnosis of pulmonary tuberculosis. Several excellent reviews[1,2], of this subject have appeared in the literature of the past five years, together with a considerable amount of intensive pathological work[3] and numerous case reports, indicating that there has been a revival of interest in this condition.

The literature on pulmonary syphilis is filled with contradictions, particularly as to incidence and as to classification of the lesions produced. Formerly, any pulmonary disease occurring in the course of a venereal infection was regarded as "venereal phthisis," until Laennec established the pathological entity of tuberculosis, and Koch discovered the tubercle bacillus, and Virchow described the syphilitic white pneumonia of the newborn and pointed out the rarity of acquired pulmonary syphilis in the adult. Then followed a period in which syphilis of the lungs was regarded as a great rarity. Even at the present time the general feeling among pathologists is that the condition is very rare, while clinicians, particularly the French, after Fournier and Dieulafoy, are inclined to regard it as of more frequent occurrence.

In Table I is shown the incidence of acquired pulmonary syphilis in medical hospital patients, general autopsies, autopsies on syphilitics and on patients with pulmonary diseases, and from the *x*-ray standpoint. In a general medical service the incidence was .05 per cent, while in general autopsies it varied from .03 per cent to .55 per cent; in autopsies on luetics from 1 per cent to 12 per cent; in patients with chronic pulmonary disease from .2 per cent to .5 per cent; and from the *x*-ray standpoint an incidence of 2.6 per cent. While it is impossible to make a composite of these figures, perhaps the chief point to be gained from them is that one out of every two hundred to five hundred cases of chronic pulmonary disease is pulmonary syphilis.

PATHOLOGY.

Syphilis may occur in the respiratory tract as a congenital or as an acquired manifesta-

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*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 6, 1925.

1. Karshner, R. G., and Karshner, C. F.: "Syphilis of the Lung," Ann. Med., 1920, Vol. i, p. 371.
2. Howard, C. P.: "Pulmonary Syphilis," Amer. Jour. Syph., 1924, vol. viii, p. 1.
3. Carrera, J. L.: "A Pathologic Study of the Lungs in 152 Autopsy Cases of Syphilis," Amer. Jour. Syph., 1920, Vol. iv, p. 1.

tion. In the congenital type of syphilis of the lungs the lesion may be circumscribed (gumma) or diffuse (white pneumonia). The acquired type is the one in which physicians are most interested and the pathologic change may be limited entirely to the trachea, bronchi, or larynx, producing ulceration, cicatrization and stenosis.

In the secondary syphilis there is bronchitis and Funk[9] has particularly called attention to an apical catarrh giving rise to fine crackling rales which may be interpreted as due to tuberculosis. Differentiation is impossible and it may be necessary to suspend judgment until the syphilis has been controlled by treatment or has progressed in its natural course to where the rales and bronchitis clear up. It is probable that these manifestations of secondary syphilis are largely responsible for the belief of those clinicians who contend that pulmonary syphilis is much more frequent than is commonly believed; however, it must be remembered that the lesions producing these signs are akin to the skin lesions and that in the progress of the disease, whether treated or untreated, these lesions gradually clear up, leaving no evidence of their presence and therefore these cases should not be considered as pulmonary syphilis.

There is no definite pathological picture which is characteristic of acquired syphilis of the lung, and it is for this reason that descriptions of the pathology vary so greatly. In general it may be said that the lesions consist of (1) gummata, (2) predominant connective tissue changes (fibrosis), and (3) alterations in the parenchyma. The gummata may be single or multiple, vary greatly in size and may soften and erode into a bronchus producing cavities which simulate tuberculous lesions. Gummata are found more often about the hili and lower lobes, but also occur in the upper lobes. The fibroid changes are more common and consist of a peribronchial fibrosis, having the gross appearance of any chronic nonspecific interstitial pneumonia and a more advanced stage of fibroid induration in which there are hard white bands forming a network through the lung parenchyma, producing deformity and lobulation similar to the syphilitic liver. Finally, there is syphilitic phthisis which is most often a mixed form of pneumonia, gummata, fibrosis, cavitation and bronchiectasis.

SYMPTOMS.

The symptoms of pulmonary syphilis are those of any chronic lung infection and always suggest first the possibility of tuberculosis. In the order of their frequency of occurrence, as noted by the Karshners, the symptoms are cough—most frequently with sputum—fever, emaciation, hemoptysis, dyspnea, night-sweats, pain and weakness, together with cardiorenal symptoms. Little need be said in explanation of these symptoms except to note that fever is not so constant, while pain and dyspnea are more frequent than in tuberculosis.

PHYSICAL SIGNS.

There are, at times, no adequate signs present in spite of a striking history of pulmonary disease, but in general the signs are those of consolidation, bronchitis, fibrosis and bronchiectasis. Rales are the most constant finding and, in the majority of cases, the physical signs are quite extensive and suggest consolidation, pleural effusion, thickened pleura or cavitation. It has generally been stated that the tendency to involvement is in the middle and lower lobes, but in the Karshners' series, involvement of the upper lobes was twice as common as of the bases and nearly half the cases showed bilateral involvement.

The *x*-ray examination offers valuable evidence, as the films will invariably show some changes even in the absence of physical findings. Watkins[7] concludes that lung syphilis can be diagnosed radiographically and, as pointed out in Table I, he finds an incidence of 2.6 per cent. He further claims to distinguish between tuberculosis and syphilis in the same patient. If his work is confirmed and concurred in by other radiographers, it will be of great help, but at present I must say that there is as yet no characteristic *x*-ray picture of pulmonary syphilis.

DIAGNOSIS.

This will be based on the signs and symptoms of tuberculosis with repeatedly negative sputum. Practically no cases of pulmonary tuberculosis with findings at all comparable to those of pulmonary syphilis will fail to show tubercle bacilli, yet the literature has many instances of patients with lung syphilis, spending months in a sanatorium for advanced tuberculosis in spite of a constantly negative sputum. Howard[2] has particularly called attention to the fact that there is often an absence of grave symptoms proportionate to the physical signs, which should make one suspicious of the possibility of some non-tuberculous disease.

The presence of concomitant signs of lues in other organs, such as the Argyll-Robertson pupil, absent patellar reflexes, nasal caries, skin lesions or osteoperiostitis, may serve as the sign to "stop, look and listen." A positive Wassermann does not mean that the existing

9. Funk, E. H.: "Syphilis with Pulmonary Manifestations," Med. Clinics of N. A., 1923, Vol. vi, p. 883.

7. Watkins, W. W.: Amer. Jour. Röentgen., 1921, Vol. viii, p. 259.

lung lesion is syphilitic, but it is both a warning and a confirmation and should be done routinely. Finally, the response to antiluetic treatment must be given due consideration, although in cases with extensive fibrosis there will be but little change in the physical findings and the results may be an increase in weight and subsidence of cough.

The possibility of tuberculosis and syphilis coexisting must be borne in mind and the differentiation is most difficult. It is a fairly well known clinical fact that tuberculous patients having concomitant signs of syphilis or with a positive Wassermann do better with antiluetic treatment than without it.

Little need be said as to treatment, for the treatment of pulmonary syphilis is that of syphilis in general, and the arsenicals and mercury, and potassium iodide especially, are all useful and necessary. The brilliant results of treatment are obtained in the gummatous and pneumonic forms, while much less can be expected in the sclerotic type.

CASE REPORT.

Case No. 1.—A male Russian, aged 26 years, entered the hospital, November, 1918, in an extremely emaciated condition, with a distressing cough, a daily afternoon temperature of 102° F., and was raising large quantities of muco-purulent sputum. There was a history of these symptoms beginning two years before, with night-sweats, increasing weakness and a progressive downward course; there had been no hemoptysis. The diagnosis of pulmonary tuberculosis had been repeatedly made and judged by the history and physical findings, was entirely justified. Examination showed marked emaciation and weakness with a distressing but nonpainful cough. The chest was symmetrical and the principal findings were marked dullness in the left back at the scapular angle and in the axilla, with diminished breath sounds, and rather coarse rales through this area. There was no shifting dullness nor were there signs of cavitation. The diagnosis of pulmonary tuberculosis was concurred in, although the examination of five twenty-four hour sputum specimens over a period of ten days, failed to reveal tubercle bacilli. An *x*-ray examination at this time showed a consolidation of the upper portion of the left lower lobe, resembling a pneumonic process. The blood Wassermann was positive and the patient gave a history of a chancre five years before, with only indifferent treatment. As his condition appeared to remain stationary, he was put on mercury injections and iodides but in the belief that we were dealing with tuberculosis in a luetic patient. In the course of three weeks, there was definite improvement with subsidence of cough, fever and sputum, and a decided clearing up of the signs. It was not until this time that it became clear that we were probably dealing with true pulmonary syphilis. Specific treatment was then continued with the result that in three months' time this man had made a complete clinical recovery and even the *x*-ray film was clear. In this case it was the positive Wassermann, the negative sputum, the unusual localization of a tuberculous lesion, and the response to therapy that established the diagnosis.

In conclusion, pulmonary syphilis occurs about once in every 200 to 500 cases of chronic pulmonary disease and therefore, while uncommon, is not extremely rare and is worth diagnosing correctly because of the tremendous importance to the patient, since proper antiluetic treatment produces remarkable cures. It does not produce a typical clinical picture and must be kept in mind as a possibility, especially when tubercle bacilli cannot be demonstrated in the sputum of a patient in whom this finding would be expected. As Clayton has said, "When it is taken into consideration that syphilis is curable and that the advanced cases of pulmonary tuberculosis, with which it is likely to be confounded, are as a rule incurable, one should be all the more careful to make no mistakes."

TABLE I.
INCIDENCE OF ACQUIRED PULMONARY SYPHILIS.

Observer	Medical Hospital Cases	Autopsies	General Autopsies	Syphilis Pulmonary	X-ray	Incidence
Howard[2]	11982	.....	.....	.....	.....	0.05
Backok[5]	.....	6000	.....	.....	.....	0.03
West[6]	.....	6000	.....	.....	.....	0.03
Lord[6]	.....	3000	.....	.....	.....	0.03
Osler[4]	.....	2800	.....	.....	.....	0.14
Stolper[1]	.....	2995	.....	.....	.....	0.16
Symmers[6]	.....	4800	.....	.....	.....	0.25
Howard[2]	.....	720	.....	.....	.....	0.55
Chiari[5]	.....	.....	98	.....	.....	1.02
Carrera[3]	.....	.....	152	.....	.....	8.00
Peterson[5]	.....	.....	88	.....	.....	12.5
Stanley[5]	.....	.....	.....	1000	.....	0.2
Jefferson Chest Hospital[9]	.....	.....	.....	1200	.....	0.33
Friedlander[8] Erickson	.....	.....	.....	791	.....	0.5
Watkins[7]	.....	.....	.....	.....	6500	2.6

ABSTRACT OF DISCUSSION.

Dr. Harold Freed, Dallas: The diagnosis of pulmonary syphilis is one of the most difficult problems in medicine. The pathologist, the *x*-ray man, and the clinician are at variance as to the incidence of pulmonary syphilis. Clinicians contend that the disease is an extremely rare one. The roentgenologist and the pathologist, on the other hand, would want us to believe that the disease is not so rare, but that its recognition by the clinician is fraught with many difficulties.

Many investigators contend that a large number of fibroid phthisis cases are really luetic in origin. No doubt, many unresolved pneumonias represent a syphilitic process. Pulmonary pathology that is suggested by auscultation, but cannot be confirmed by a roentgenological examination, should arouse the suspicion of lues. One should be warned of the fact that because a case may clear up under antiluetic treatment this is not always conclusive proof that the case was luetic. The literature contains reports of many cases in which specific treatment did not relieve the condition, and again, there are those in which the condition cleared up without treatment.

I feel that Dr. Agnew's presentation of the subject was very instructive, especially from the standpoint of diagnosis and treatment of his case.

Dr. Gibbs Milliken, Galveston: Pulmonary complications of syphilis are very rare. In 1,800 autopsies, we have recorded only three cases of syphilis of the

4. Osler, W.: The Principles and Practice of Medicine, Ninth Ed., p. 278, Wm. Wood and Co.
5. Quoted from Carrera, Loc. Cit.
6. Quoted from Howard, Loc. Cit.
8. Friedlander, A., and Erickson, R. J.: Jour. A. M. A., 1922, Vol. lxxix, p. 291.

lungs. In one of these we found a primary flat-cell carcinoma of the lung in association with the syphilitic condition. This is certainly a very small percentage of the total number of individuals showing evidences of syphilis elsewhere in the body.

Dr. D. W. Carter, Dallas: I have never seen a case of pulmonary syphilis in which I would be absolutely positive of the diagnosis. Even if the patient should have a positive Wassermann and the lung pathology clear up some under antileutic treatment, it still does not prove the diagnosis of syphilis of the lung. A patient may have a positive Wassermann with a pure tuberculous process in the lung. Do not push antiluetic treatment too strenuously in a tubercular patient; it may markedly activate the tuberculous process and may even cause a severe hemorrhage from the lungs.

Dr. Agnew (closing): I believe that the question of diagnosis of syphilis of the lung is not an academic one. It is the clinician's problem. I will admit that the pathologists have the reports showing the condition to be a rare one, but I believe that as a rule the clinicians think there are many more cases than the pathologists would lead us to believe. Many cases of syphilis of the lung have been cured by the clinician before the patient comes to autopsy. I disagree with Dr. Carter with reference to antiluetic treatment in the tuberculous. I do not believe that antiluetic treatment will aggravate the condition. My observation has been that tuberculous patients with a positive Wassermann fare better with antiluetic treatment than without it. In closing, it is my opinion that the therapeutic test in the diagnosis of syphilis of the lung is of extreme value and counts for something.

EXPERIENCES WITH MERCUROCHROME.*

BY

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AMARILLO, TEXAS.

Mercurochrome is the disodium salt of 2:7 dibrom - 4 - hydroxy - mercury - fluorescein made by combining one atom of mercury with one molecule of dibrom-fluorescein, and contains from 23 to 24 per cent of mercury. Externally it is used in strengths of from ½ to 2 per cent in the eye, the latter proving successful in the treatment of ophthalmia neonatorum. In our own office the drug has replaced iodine in the disinfection of wounds, supplements argyrol to some extent in the local treatment of tonsillitis, and in mercurial stomatitis, as paradoxical as it may seem, a ½ of one per cent spray of mercurochrome alleviates the pain and restores the mouth more quickly than any other local application. In gonorrhea its efficacy is as questionable in our minds as is that of any other drug, but at times improvement seems to follow urethral instillation when the drug is retained for 5 minutes or longer. From ½ to 1 per cent solutions are used in acute conditions, and as strong as 2.5 per cent in chronic cases.

But more particularly would we call your attention to the intravenous administration of this drug which a few times has proven little short of miraculous. During the past year we have used the drug, either alone or in conjunction with other forms of treatment, in about seventy-five cases, including two cases of acute rheumatic fever with heart lesions and swelling of joints, one of general peritonitis, one of gas gangrene, quite a number of post-abortional complications, one post-caesarean complication, one case of acute endocarditis complicating pregnancy, two of pyelitis, one of chronic gonorrhea, three of acute gonorrheal epididymitis, two of erysipelas, and two of gonorrheal arthritis. A few brief case histories may give an idea of our results.

CASE REPORTS.

Case No. 1.—Mrs. J. W. H., a very obese white female, 25 years of age, was operated on for chronic salpingitis. Four days after a salpingo-oöphorectomy, the patient became toxic, the abdomen distended and rigid, the pulse 160, the temperature 103.2° F., and appeared cyanotic. A diagnosis of general peritonitis was made and hope of recovery was no longer fostered. She was given 30 cc. of 1 per cent mercurochrome intravenously, and within 18 hours her temperature, respiration and pulse were normal and remained so until her discharge from the hospital.

Case No. 2.—J. C. C., a well driller, was admitted to the hospital with his foot cut nearly off. Eleven days after partial amputation of his toes, the remaining toes became moist and gangrenous. His leg was amputated below the knee in a clean field at least twelve inches above the proximal portion of the infection. Two days after amputation the stump became swollen, red, and very painful. Distinct crepitation was noted half way up the knee and a suggestion of gas was elicited above the knee. Since he had a temperature of 101° F., a pulse of 100 and a respiration of 20, the stump was opened and the oily exudate pathognomonic of gas bacillus infection dripped from the wound. The patient was given 20 cc. of antistreptococcic serum in divided doses and 40 cc. of 1 per cent mercurochrome in two doses. His temperature dropped to normal and he is convalescing nicely, except for the extreme sloughing. We feel that mercurochrome was a lifesaver here, but cannot gainsay the effect of the serum or of the free opening of the wound.

Case No. 3.—This was a case of acute rheumatic fever in a boy of 14 years, who for two or three years had suffered from painful swelling of the joints, acute recurrent tonsillitis, and shortness of breath. Having failed to respond satisfactorily to sodium salicylate either by mouth or intravenously, 15 cc. of mercurochrome was given him, which produced complete relief from the pain within three hours and, so far as I know, there has been no recurrence of the fever. The physical condition of this patient makes tonsillectomy a grave operation.

Case No. 4.—The sister of boy cited above in Case No. 3, had the same complaint but was not in such poor physical condition. Fifteen cc. of mercurochrome returned her to normal.

Case No. 5.—Mrs. L. L. was admitted to the hospital with pain in her lower lumbar region, a temperature of 101.5° F., pulse of 120 and respiration

*Read before the Potter County Medical Society, Amarillo, Texas, June 8, 1925.

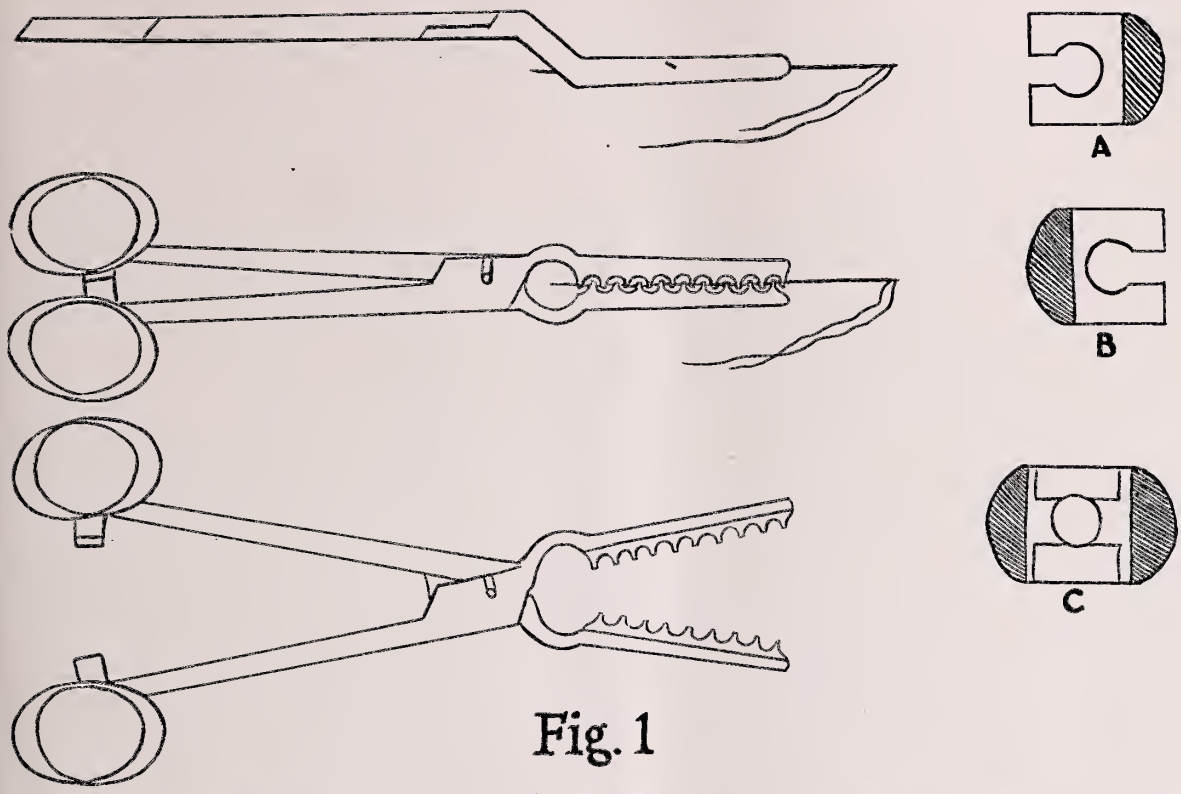

Fig. 1

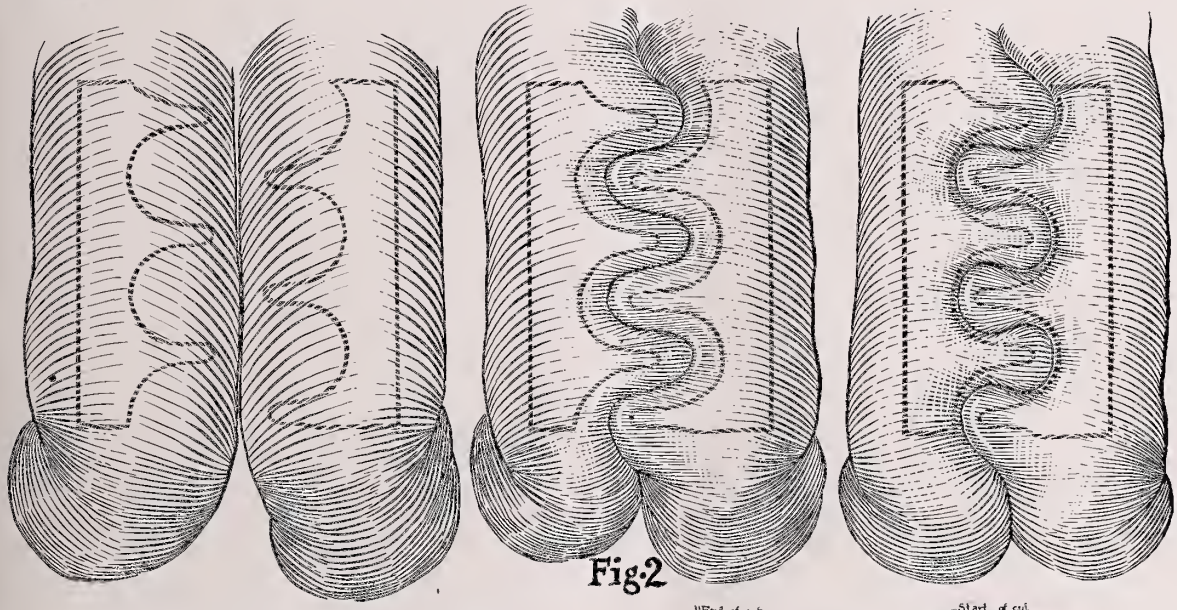

Fig.2

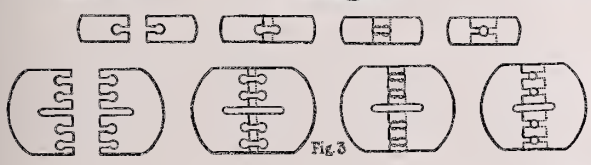

Fig.3

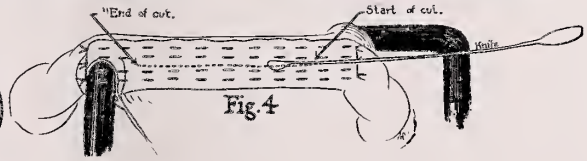

Fig.4

PLATE I.

DIAGRAMMATIC REPRESENTATION OF WORKING PRINCIPLES OF RAPID SUTURE CLAMP.

Fig. 1. Dr. A. C. Scott's original instrument. A and B—Interlocking teeth show slot for release of suture. C—Clamp closed, showing center hole for one suture.

Fig. 2. Infolding approximated sections of intestine with interlocking teeth. The clamp jaws are inside the lumen of the bowel.

Fig. 3. Comparison of teeth of original forceps with teeth of Rapid Suture Clamp, which contain holes and central slot for knife.

Fig. 4. Clamp with bowel in place (viewed from the side), showing 4 lines of sutures and knife cutting lumen between two central lines.

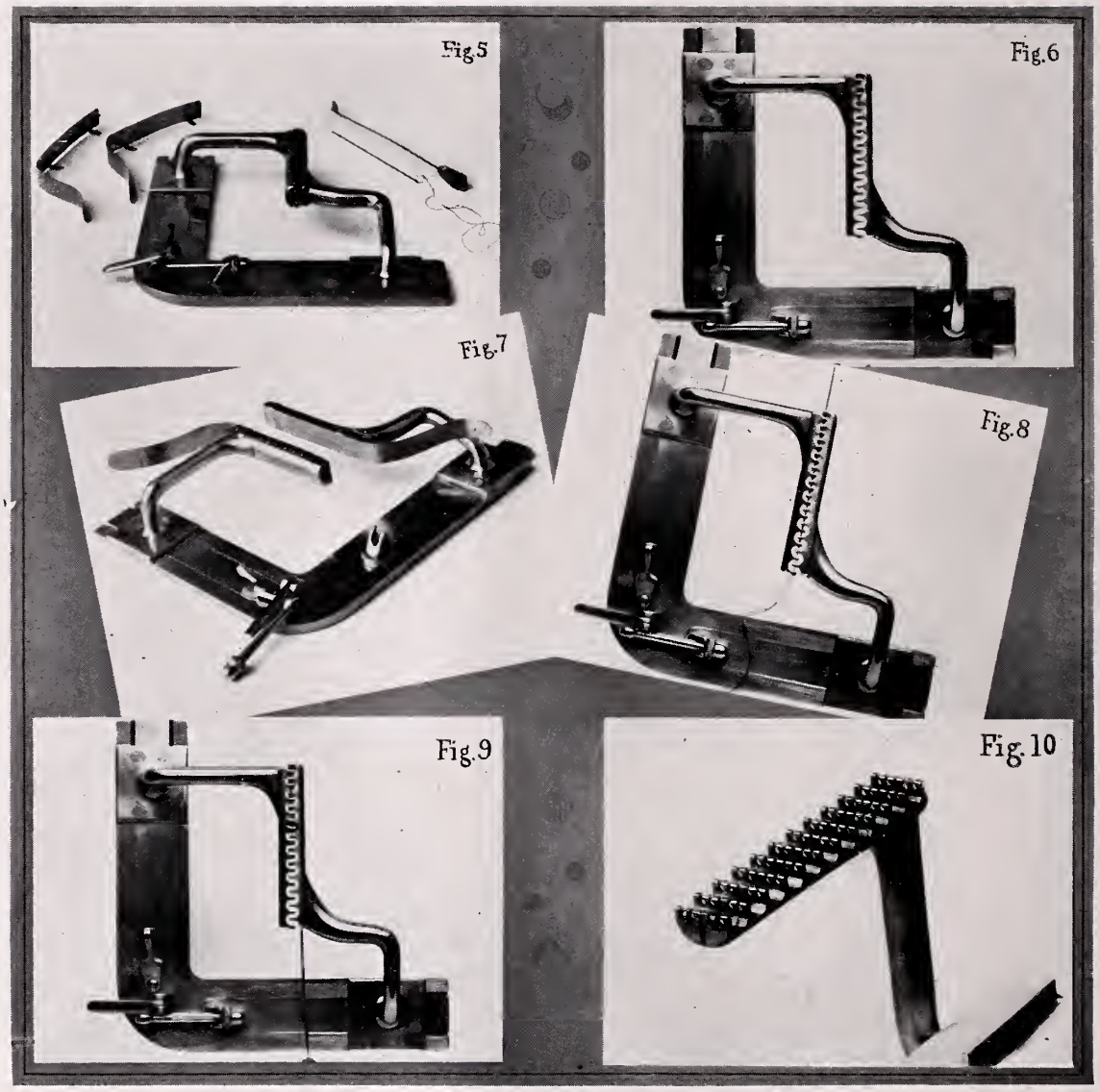

PLATE II.

PHOTOGRAPHS OF RAPID SUTURE CLAMP.

Fig. 5. Oblique end view of clamp, thin metal guards (upper left), and long needle and knife (upper right).

Fig. 6. Upper surface showing right angle frame, sliding planes supporting arms and teeth of male jaw (right) interlocked with teeth of female jaw (left).

Fig. 7. Angle view. The lock (bottom) of male jaw is unclamped, the male jaw is slipped out about one inch and the teeth of each jaw are covered with thin metal guards.

Fig. 8. The needle with suture passing through one hole in the teeth of both jaws.

Fig. 9. The knife inserted through the slot in the supporting arm of the male jaw and passing down through the center of both jaws.

Fig. 10. Oblique view of teeth of one jaw.

32. Her urine showed a trace of albumen, no casts and numerous pus cells. The blood count showed 10,900 leucocytes, 82 per cent polys. She was given 20 cc. of mercurochrome intravenously. Her temperature rose to 104.8° F., but by next day dropped to normal and remained so. No recurrence of the pyelitis has followed.

In two cases of gonorrheal arthritis we have pushed the drug to saturation without appreciable effect. We tried it in chronic gonorrhea, the "last drop" having been reported stopped by this treatment, but without beneficial results. In erysipelas we have not been brave enough to depend upon it solely, but do feel it is a decided adjunct to the serum and can be used in connection with it. In one asthmatic with Bright's disease, mercurochrome alone was used for erysipelas. The original lesion practically healed but the patient died from hypostatic pneumonia.

In the Philadelphia General Hospital mercurochrome was used in pneumonia on one service, but good results were recorded only when the infection was streptococcic. The drug has been suggested as a biliary antiseptic and experimental evidence offered to prove that 25 per cent of it is excreted in one hour and 44 per cent in two hours, when the drug is given intravenously.

Deaths following the administration of the drug have been reported in extremely ill patients, but we have encountered nothing worse than extreme vomiting, diarrhea, and mercurial stomatitis, and on one occasion a moderate nephritis. The vomiting soon subsides, the diarrhea is controlled by bismuth preparations and paregoric, the stomatitis by sodium thiosulphate intravenously, and the nephritis by the usual approved methods.

In conclusion may I suggest that this new dye-metal combination is as distinctly a chemiotherapy process with special affinity for certain organisms as is found in neoarsphenamin with its toxicity for the syphilitic organism, and that although by no means a panacea for all the ills that beset mankind, it is a drug worthy of a place both in medical and surgical practice.

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1. Hill, J. H., and Scott, W. W.: Arch. of Int. Med., Vol. xxxv, p. 503, April, 1925.

Diphtheria Toxin-Antitoxin Mixture 0.1 L.—A diphtheria toxin-antitoxin mixture (New and Nonofficial Remedies, 1925, p. 333), each cc. containing 0.1 lethal dose of diphtheria toxin neutralized with the required amount of diphtheria antitoxin. Marketed in packages of three 1 cc. vials; in packages of one 30 cc. vial; in packages of ten vials, each containing three doses. Eli Lilly & Co., Indianapolis.

INTESTINAL ANASTOMOSIS BY RAPID SUTURE CLAMP.*

BY

A. C. SCOTT, Jr., M. D.,
TEMPLE, TEXAS.

Since the time of the development of the Murphy button, 32 years ago, very little new constructive work has been done on intestinal anastomosis. The reasons for this are obvious to careful students of abdominal surgery. The Murphy button, which was heralded far and wide, did not prove to be as satisfactory as was anticipated. Many cases did well after its use, but as time went on and reports of trouble arising from it were made known, surgeons gradually gave up its use for safer, older methods of intestinal anastomosis, and it was right and proper that they should. End-to-end anastomosis had been found to be fairly satisfactory, and in the hands of the majority of surgeons, lateral anastomosis has proven almost entirely so. There are only two real drawbacks to lateral anastomosis as it is usually done today; namely, occasional valve formation and the time factor. The time necessary to do an operation of this kind prevents its being done in many instances when such an operation is really needed. This is particularly true in those cases of intestinal obstruction in which the length of the operation is a big factor in causing shock. Good surgical judgment today calls for a simple enterostomy or colostomy in such cases.

The shortest time in which I have seen a lateral anastomosis performed was fifteen minutes, *i. e.*, for the procedure of anastomosis only. Some of you have possibly performed or have seen this operation performed in that, or even a shorter time, but I believe that a very conservative estimate of the time expended by the average good surgeon would be twenty-five to thirty minutes, and many times it takes much longer. The question therefore arises, "Is it not possible to materially decrease the time of this operation by some mechanical means?" We believe there is such a means.

In 1905, Dr. A. C. Scott, Sr. read a paper entitled, "Intestinal Anastomosis by Intra-Intestinal Ligature and Rapid Forceps," before this association. He described a forceps which he had devised, by means of which he could take sixteen stitches with one stroke of a needle. Each blade of the forceps had projecting teeth which interlocked with those of the opposite blade, and in the center of

*Read before the Section on Surgery, State Medical Association of Texas, San Antonio, April 30, 1924.

each tooth was a hole and above it a slot. The needle when pushed, went straight through the holes in the teeth of both blades. By infolding two pieces of intestine with these interlocking teeth, the needle passed through both intestinal walls and thereby joined them with a suture. This, in reality, was a Connell suture, straightened out. (Fig. 1.)

The operation as described by him at that time proved impracticable, both from the standpoint of the time consumed and of the difficulty of making the forceps work properly at all times. Many of the criticisms offered in discussion then proved to be just ones. One operation upon a dog, done soon after the paper was read, was successful from the standpoint of healing and functional result, but because of the time consumed in the various steps of the operation, it was at once found to be impracticable.. Assisting in this operation when a boy was my first experience in surgery and I remember it quite vividly. Although I was disgusted with surgery in general and that operation in particular, my father never lost faith in the principle of his forceps. About three years ago, he presented it to me, insisted that it could be made practicable if one had the time to devote to its development, and urged me to complete the undertaking. I then assumed the task. If, in the light of further experience, this type of operation should prove successful, the only credit that I will deserve will be for the small part that I took in helping to make a brilliant idea practicable.

The requisites of a new instrument of this type are as follows: (1) With it, one must be able to perform a lateral anastomosis as accurately as it can be performed by the usual separate stitch methods; (2) the functional results must be as good as those obtained when anastomosis is done by the usual method; and (3) the use of such an instrument must cause a considerable saving in time.

We believe that the instrument about to be described will accomplish all of these results. As a matter of fact, the operation can be performed much more accurately with it than can be done by the average surgeon by the usual technique; and, as I will show you from our time data on experimental operations, the conservative average for the usual technique of twenty-five minutes can be reduced by the use of the instrument to five or six minutes, even in the hands of a mediocre surgeon. We cannot speak about ultimate functional results, as the instrument under discussion has been in use only a little over a month, and the only results that I can cite are those that have been obtained in that length of time.

PRINCIPLES UNDERLYING THE ACTION OF THE INSTRUMENT.

The first and essential principle of the instrument is that of infolding two approximated layers of intestine, in the same manner as that sometimes employed by seamstresses when they approximate two layers of cloth in the process of "gathering" and take a number of stitches with one sweep of the needle, thus joining the two approximated surfaces. This was Dr. Scott Senior's original idea and was described by him in the TEXAS STATE JOURNAL OF MEDICINE of July, 1905. (Fig. 2.)

The next principle of this particular instrument is that of having the clamps so approximated and so accurately adjusted as they slide up and lock in place (a) that the holes in the teeth of the opposing side will at all times be in accurate alignment in order that a needle may be easily passed through; (b) and that there will be sufficient space to allow for the infolding of the two layers of the intestine without pinching. (Figs. 2 and 3.)

The third principle is that of cutting the inter-intestinal lumen after the sutures are taken, while the intestine is still in the clamp, and permitting this cut to be made exactly the right length and at exactly the right distance from the two lines of suture on either side. (Figs. 4 and 15.)

The fourth principle is that of allowing all procedures in the technique of anastomosis to be performed *without changing the clamp.* This is done by having four parallel lines of holes in the teeth and a slot in the center for the cutting blade (Figs. 3 and 10), and will permit two continuous sutures on either side of the opening. Twenty-three stitches are taken each time the needle is pushed through, thereby making ninety-two separate stitches with four strokes of the needle. (Fig. 4.)

DESCRIPTION OF THE INSTRUMENT.

The instrument is composed of a right angled frame base, in which there are two sliding blades, so arranged that the blades slide in a dovetailed groove in the main frame. (Fig. 5.) Two arms extend upward from the blades, these meeting in the center of the open space between the ends of the right angled frame, and each holding a jaw, or the clamp proper. The clamp is composed of the two jaws, the teeth of the one jaw interlocking with those of the other. (Fig. 6.) These teeth are pierced by a series of four parallel holes, with openings in the top of the teeth communicating with each hole. (Figs. 3 and 10.) When the clamp is adjusted and locked in place, a needle can be passed through any one of the four holes at

the end, and will pass straight on through the holes of the teeth of both sides. (Figs. 2, 8 and 13.) The slot in the center of each jaw of the clamp permits the insertion of a knife for the purpose of cutting the inter-intestinal lumen. (Figs. 5, 9, 10, 14 and 15.) The sliding blades are locked in place by a simple clamp device. (Figs. 5 to 7.)

THE TECHNIQUE OF THE OPERATION.

Only a very brief description can be given at this time. Following a resection the cut ends of bowel are brought out of the abdomen, and a soft rubber clamp is placed about six or eight inches back of each cut end. The abdominal wound is then thoroughly protected from later infection by carefully placed packs, and the whole operative field by two large thin rubber sheets and towels, these being applied around the bowel beneath the rubber clamps.

The cut clamped end of the bowel is opened and milked free of fluid contents. It is then grasped on the cut circumference with Alice forceps and drawn over one jaw of the anastomosis clamps. (Fig. 11.) The other segment of intestine is applied on the other jaw in a similar manner, care being taken to have at least one and a half inches of bowel around on the supporting arm. (Fig. 12.) This is needed for later closure of the open end. The flexible jaw guards are then removed. (Figs. 5, 7.)

The male jaw is then pulled up and locked in place, thereby folding the two pieces of approximated intestine back and forth on each other. (Fig. 3, 13.) Four sutures are passed through the four holes in the clamp, secured and tied at the ends. (Figs. 2, 4, 13.) The knife is inserted in the slot of the supporting arm of the male jaw, pushed down and pulled out. This cuts a two-inch lumen. (Figs. 4, 14, 15.) The male jaw is unclamped and pulled out one-half inch, releasing the lines of suture in the center. (Fig. 16.) The female jaw is then unclamped and slipped out of the intestine (Fig. 16), and in a similar manner the male jaw is removed. The anastomosis is now complete.

The open ends of bowel are then inverted, and with two stay sutures attached to adjacent intestine.

The anastomosed intestine is then freely washed with salt solution and the soiled linen, packs, etc., removed. The surgeons change gloves, and with fresh sterile instruments, close the opening in the mesentery, place the bowel back in the abdomen, and close the wound.

I have performed many experiments upon beef and hog intestines in which the average time of performing the anastomosis and cutting the lumen was four minutes, the shortest time being two and one-half minutes.

EXPERIMENTAL OPERATIONS.

A—WITHOUT USE OF THE GUARDS.

Dog No. 1 (Brownie).—After getting the intestine about half way on to the clamp, it went into a spasmodic peristaltic contraction, and it was necessary to cut off this portion of the intestine from both clamps and to try again. The second time, the intestine was pulled over the clamps more quickly, but it could not be pulled around far enough for the ends to be properly inverted. However, the anastomosis was done and the lumen cut and ends closed in the best manner possible. The total time of the operation from opening to closing of the abdomen, was 1 hour and 10 minutes. It was anticipated that the ends would leak, however, and the dog died 48 hours after operation, from peritonitis, due to the leakage from one end. The specimen was removed, and, as will be seen from Fig. 17, the line of suture was in good condition, smooth, apparently uniting, and the lumen was wide open and free. There were no adhesions to the line of anastomosis.

Dog No. 2 (Bulgar), was operated without the use of the guards shown in Fig. 5. His intestine was somewhat larger than that of the first dog, and with the use of hot packs, we were able to get the intestine on to the clamps in about 8½ minutes. The time of the anastomosis was 6¾ minutes. There was moderate vomiting and retching after operation for three hours, but none after that. He had a hard, formed bowel movement in 12 hours (probably of old material in the large intestine). This bowel movement was thin and contained old blood and small blood clots. One other bowel movement at end of about 50 hours contained old blood, but there was none in subsequent movements. At end of 72 hours, he had a hard, formed, brown movement containing much straw, and two other similar movements during the next day. The remaining movements were normal in size and shape, and he was given milk and broth at end of 36 hours, then milk and bread, and on the fifth day, through negligence, he missed his food; he jumped out of his cage into the yard and ate some spoiled meat. He became nauseated, and while vomiting, broke his wound open, pulled the dressing off, and when discovered, was dragging the intestine around on the ground. He was chloroformed and the specimen removed, which showed a splendid healing process. The omentum was adherent near one end, but there were no other adhesions and no evidence of peritonitis. The lumen was wide, and apparently healing well, but showed slight evidence of trauma (bloodclot) beneath the serosa along the upper line of suture, probably caused when intestine was forced over teeth. (Fig. 18).

B—WITH USE OF GUARDS.

Dog No. 3 (Speck).—In this operation, the guards were used, and intestines was slipped on in 3½ minutes, *i. e.*, about 1¾ minutes for each end. The anastomosis was done in 6½ minutes and was followed by an uneventful recovery. Old brown blood in small quantities appeared in the first bowel movement, 48 hours after operation. There was no other evidence of blood in feces, and no vomiting after the first two hours. The bowel movements were semi-formed at the end of 4 days. I chloroformed this dog at the end of 9 days, and Figures 19 and 20 show the excellent condition of healing of the line of suture and of the lumen. The only adhesions were those of a thin film of omentum to the upper suture margin, but no evidence of peritonitis was found.

Dog No. 4 (Grey).—The time required to get intestine on to clamp in this case was 3 minutes, and the time of anastomosis, 6 minutes. There was no evidence of blood in the feces at any time and no vomiting or retching. He is now on a bread and ground-meat diet. This dog has been operated 16 days and is still doing well.*

Other dogs have been operated in past week and all are apparently doing well.

CONCLUSIONS.

1. By means of the rapid suture clamp a lateral anastomosis of the intestine can be performed more accurately than can a lateral anastomosis done by the usual separate stitch method.

2. The use of the rapid suture clamp enables one to perform the operation of lateral anastomosis in less than one-fifth of the time ordinarily consumed in doing such an operation.

3. Experiments upon animals indicate that anastomosis performed by this means is as safe from the standpoint of leakage and later healing as that performed in the usual manner.

4. The initial functional results, as obtained in dogs, are apparently as good as those obtained when anastomosis is done in the usual manner.

ABSTRACT OF DISCUSSION.

Dr. Paul Gunby, Sherman: I want to congratulate Dr. Scott, Sr., on his conception of the principles of this ingenious instrument, and Dr. Scott, Jr., on the execution of this idea. The history of intestinal surgery covers many years, and its early period was fraught with disappointments. Bone bobbins, leather cylinders, gelatin bobbins, and many other contrivances played some part, but the Murphy button led the way to brilliant achievement, and advanced the technique of intestinal anastomosis. Improved methods have dispensed with this button.

Dr. Scott's instrument makes a rapid lateral suture easy, and should, in its further development, have some application to rapid gastro-enterostomy. It should be a life saving device in urgent cases of intestinal obstruction and in long drawn out procedures.

Dr. A. H. Potthast, Weimar: This instrument of Dr. Scott's will probably be the beginning of the evolution of a more complete instrument. The worst objection to the operation as described is the fact that the intestines are opened up. The instrument is probably too cumbersome and expensive. Dr. Kerr of Washington, D. C., has written an article on intestinal anastomosis in a recent number of the *Journal of the American Medical Association.*

Dr. W. L. Crosthwait, Waco: I admire the surgeon who developes these special instruments, but none of these devices can eliminate surgical technique. In fact, some of these devices have proven harmful. The Murphy button retarded the development of intestinal anastomosis.

Dr. Scott (closing): I am quite aware of the defects of this instrument and fully realize that it can be improved upon. Some of the objections to it that have been raised in the discussion, have already been met.

I again call attention to the fact that this is merely a preliminary report and that this operation is still in the experimental stage.

The objection of Doctor Potthast, that, in this operation the intestine is opened up, is more apparent than real. It should be remembered that in every lateral anastomosis the intestine is opened, and that the question of soiling in every case is only a matter of degree. The prevention of infection following any type of anastomosis, depends upon the care in walling off with packs and towels prior to opening of the intestine, and the manner in which the soiled materials are disposed of after the anastomosis is completed.

*Note:—At the time of publication of this paper, fourteen months after operation, this dog is still well and his intestinal tract functions normally. During this time eight other animals and one human being have been operated upon in a similar manner, all apparently with excellent results.

THE CAUSE AND PREVENTION OF POSTOPERATIVE GAS PAINS.*

BY

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SAN ANTONIO, TEXAS.

As Chairman of the Surgical Section, I am taking the liberty of bringing before you a technical subject rather than making a formal address. The subject in which I have been interested, and which I know all other surgeons are, is "The Cause and Prevention of Postoperative Gas Pains."

In surgery, one of the most important factors in postoperative treatment is preoperative preparation; however skilled the operator, however finished his technique, the operation in itself is a mere mechanical feat, and the real test of the surgeon's generalship and ingenuity lies in the anticipation of complications, and in their early recognition and treatment, should they supervene.

Several years ago, in making a comparative study of this subject, I was forcibly struck with the fact that I had less distention, and gas pains, in my series of cases operated at the Robert B. Green Memorial Hospital than in my private cases, even though the private ones were, as a whole, clean and uninfected cases when they came to operation. After careful investigation and observation, I reached the following conclusions: First, that my charity patients were in the hospital for a longer period prior to operation than in my cases in private practice; second, the former also received a purgative soon after entering the hospital, thereby avoiding the usual doses of castor oil on the night prior to operation, but, on the other hand, were kept on light diet with lots of fluids and then given an enema at night and the morning before operation; and third, that most of these cases were from the laboring class, who live on plain, simple food and lead outdoor active lives, and hence

*Chairman's Address, read before the Section on Surgery, State Medical Association of Texas, Austin, May 5, 1925.

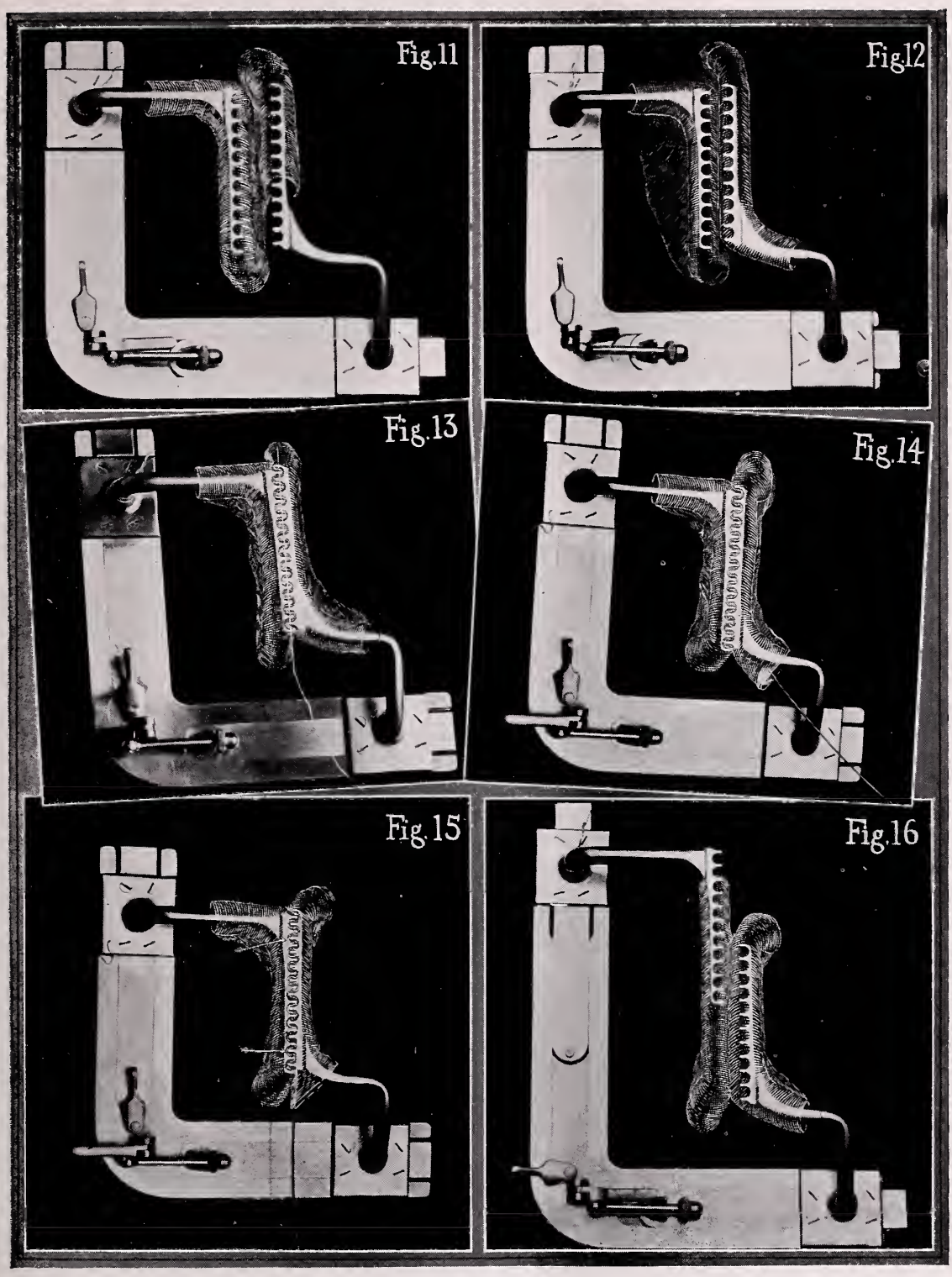

PLATE III.

DIAGRAMMATIC ILLUSTRATIONS OF TECHNIQUE OF OPERATION.

Fig. 11. Placing intestine on clamp. Female jaw is inside lumen bowel (left). Open cut end of bowel on right is being pulled on to male jaw (metal guards, Alice forceps and rubber clamps not shown).

Fig. 12. Intestines in place and clamp being closed by lever lock (lower left). Surplus intestine beyond clamp on each supporting arm is necessary for later closure of open ends.

Fig. 13. One passage of needle through infolded intestinal walls. One passage of needle clamp produces twenty-three stitches. Four such lines of continuous suture are taken and tied together at each end.

Fig. 14. Through open end of bowel on male supporting arm the knife is inserted obliquely into slot in the arm and pushed in.

Fig. 15. Angle of knife changed as it is pushed down central slot between two middle rows of sutures (see Fig. 4). Arrows indicate length of cut.

Fig. 16. Removing anastomosed intestine from clamp. Male jaw is released and slipped out one-half inch, freeing lines of suture in the center. Female jaw is unlocked and slipped out of the open end of bowel (left) and intestine on right is then slipped off of male jaw.

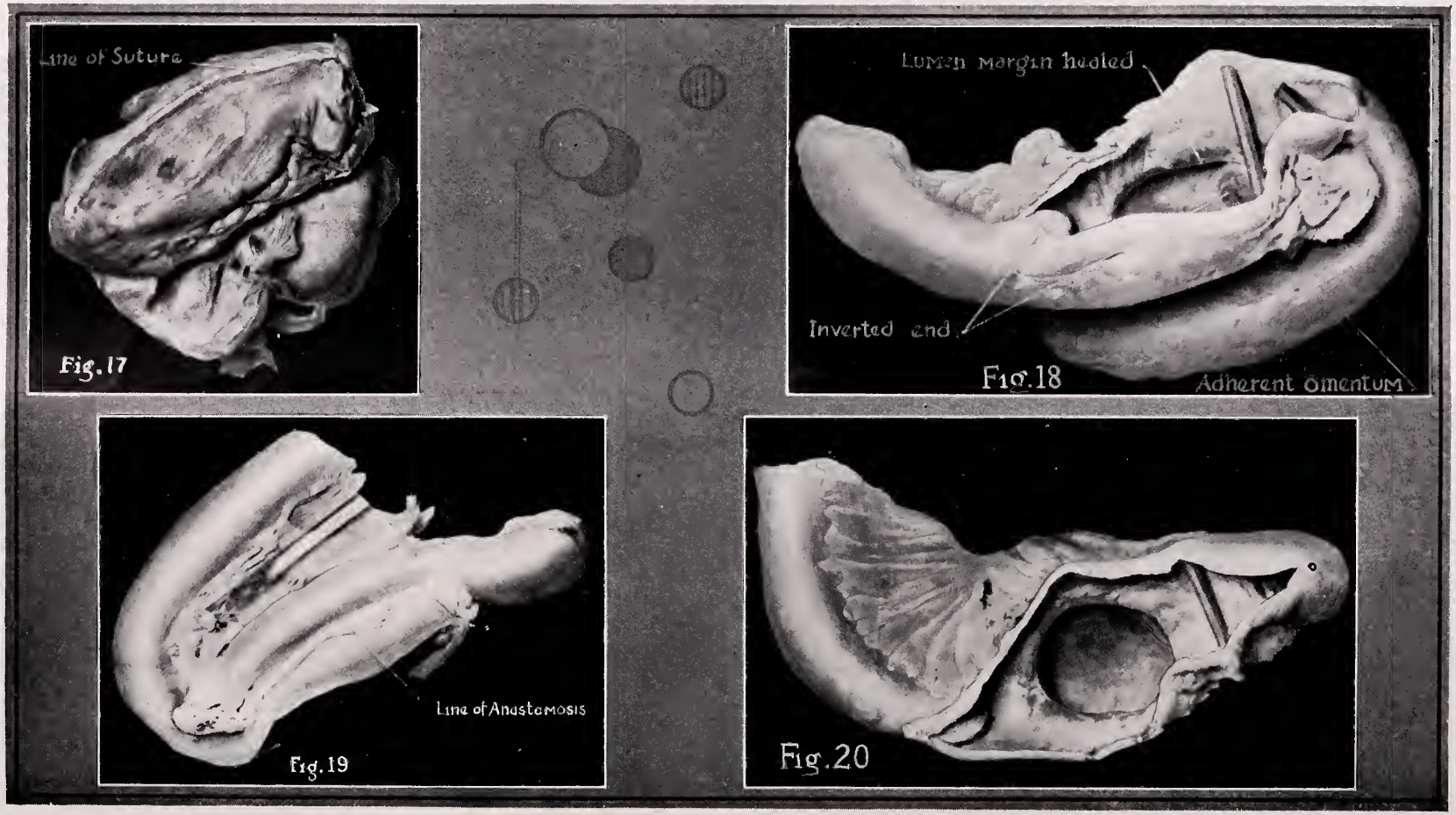

PLATE IV.

SPECIMENS OF ANASTOMOSED INTESTINE REMOVED FROM DOGS.

Fig. 17. Dog No. 1. Showing exterior line of suture covered with plastic exudate and without adhesions at the end of 48 hours.

Fig. 18. Dog No. 2. Specimen removed at end of 5 days. Window cut out of side of intestine shows inverted ends, smooth margin of interintestinal lumen, smooth healed outer line of anastomosis and adherent omentum near one inverted end.

Fig. 19. Dog No. 3. Specimen removed at end of 9 days shows exterior line of anastomosis.

Fig. 20. Dog No. 3. Cut window shows very smooth healed circular opening between intestines.

their natural muscular tone was far superior to those who led sedentary lives.

The operative and postoperative treatment in the two classes of patients were very similar, so, as I was anxious to avoid the occurrence of postoperative gas pains, which were prevalent in most of my cases, but more so in my private ones, I began to check up to see where my trouble lay.

In the private cases that did not require emergency operations, more time and care were given to preoperative treatment. By alkalinizing these patients by giving sodium citrate or bicarbonate water freely for a period of 24 or 48 hours prior to operation, the possibility of nausea, dehydration and acidosis is greatly diminished. I have also discontinued the practice of giving a purgative the night before operation. Inasmuch as the small intestine empties itself in from 7 to 9 hours, the colon can be thoroughly cleansed with an enema on the morning of the operation.

In a series of cases from Barnes Hospital, reported by O'Keefe in 1924, when castor oil was given in the preparation for operation, the percentage of patients suffering from gas pains increased to 62.5 per cent, while in those cases that received the same preparatory treatment that I have been using, and careful operative and postoperative treatment, the percentage was reduced to 9.6 per cent.

I call your attention to cesarean sections on account of the frequent presence of postoperative pains, regardless of the pre- or postoperative treatment. This, no doubt, can be attributed to the intestinal irritation that is set up through the emptying of the uterine contents, the direct trauma to the pelvic and abdominal organs and, perhaps, to the relief of abdominal pressure. The high percentage of gas pains with stormy postoperative courses shows that cesarean section should be held strictly to its indications, and not taken so lightly by the surgical enthusiast.

In the study of this subject, the anesthesia must be considered as one of the many factors involved in the causation of postoperative symptoms. Whether the anesthetic is improperly or skillfully administered plays an important role.

During the operation, trauma is the principal factor to be considered. This can be minimized by avoiding rough handling of the tissues, by covering iodinized skin over with towels held by clips in order to prevent contact with the intestines, and by the use of hot wet packs which are placed without traumatizing the gut.

The time consumed in operating largely governs the postoperative course, so the shorter the better, but do not sacrifice skillfulness for a time record. Also avoid such errors as compressing a loop of intestine under a retractor or firm packing for a long period of time, thus injuring the nerve and blood supply and interfering with its normal rhythmic peristalsis.

Next we will consider the question of postoperative treatment. By giving morphine grains 1/6 and atropine grains 1/150, we have been able to reduce the amount of ether used during operation. The patient should receive one pint of saline solution per rectum immediately after operation. Every four hours 10 ounces of this solution is given in the same manner until the patient begins to take water by mouth. The patient is given morphine and atropine sufficient to alleviate the pain, for even though it does retard peristalsis, it does not retard it to the extent that pain, fear and worry would.

Nausea is an early postoperative difficulty, which is treated by allowing tap or hot water, in small quantities, or by washing out the stomach, or by giving hot soda water by mouth, and if unsuccessful, giving gastric lavage. This plan is also used in acute dilatation of the stomach. For distention I use the rectal tube and enemas. Where there are evidences of acidosis, this should be treated by administering alkaline solution intravenously. I am doubtful as to just what results I have obtained from pituitrin, eserin and strychnin, in the treatment of these cases. However, in a total of 162 cases, studied over a period of eleven months in the Johns Hopkins Hospital during 1921-1922, the conclusion was reached that no benefits were to be derived from the postoperative use of eserin and strychnin following abdominal operations on the pelvic viscera.

In fact, paradoxical as it may seem, postoperative complications, such as emesis, delayed voluntary micturition and distention particularly, appear to occur more frequently in patients treated prophylactically with eserin and strychnin, than in those not so treated, and so its use has been abandoned in the gynecological service of the Johns Hopkins Hospital.

In conclusion, I want to stress the following outstanding points:

1. Preoperative preparation, including no purgation, ordinary meals except breakfast, an enema the morning of operation, and large quantities of alkaline water from 24 to 48 hours prior to operation.

2. Morphine and atropine half an hour before the anesthetic.

3. Avoidance of all semblance of trauma, while operating.

4. Postoperative treatment consisting in keeping the patient comfortable with morphia, and stimulating peristalsis mechanically, by volume rather than by Murphy drip.

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THE DIFFERENTIAL DIAGNOSIS OF CHRONIC PULMONARY TUBERCULOSIS*

BY

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A comprehensive discussion of the differential diagnosis of all the stages of pulmonary tuberculosis with a consideration of all the diseases which simulate it, would carry one far beyond the time apportioned for the presentation of this paper. Therefore, it shall be my purpose to present the clinical aspects of those diseases only, which are confined within the thorax and to limit my remarks to chronic pulmonary tuberculosis. The Röentgen-ray differentiation will not be considered.

Especially since the recent pandemic of influenza, the chronic diseases of the upper respiratory passages have produced clinical syndromes which have caused great difficulty in differentiating them from pulmonary tuberculosis. Chronic nasal sinusitis, particularly infections of the ethmoidal cells and the sphenoidal cells, chronic tonsillitis and chronic pharyngitis may produce clinical manifestations very similar to pulmonary tuberculosis. Clinicians at one time considered practically all patients with an afternoon fever, loss of weight, cough and physical signs of upper lobe pathology as tuberculous. That such is not invariably true is now appreciated. Certain characteristics will serve to differentiate these chronic nontuberculous cases from tuberculosis. A history of long standing cough, especially marked during the winter months, with occasional exacerbations of an upper respiratory infection, considerably alleviated during the summer months, and without marked loss of weight, is the story of the chronic nontuberculous infection of the upper respiratory tract.

Symptoms of toxemia, tachycardia, progressive weakness, loss in weight, and marked diurnal variations in the temperature curve are absent in the chronic nontuberculous patients. Although we may, at times, find the upper lobe of the lung involved, and this is especially true of the right apex, we invariably find the greater involvement in the basal tissues. Usually both bases present large moist rales and harsh breath sounds. Whispering pectoriloquy, tubular breath sounds, decided narrowing of the apices, and variations of the amount of respiratory excursion are notably absent. In these cases, a strikingly evident feature is the extensive degree of pulmonary pathology present, the major involvement being in the bases, and the lack of toxemic symptoms such as one would expect to find in pulmonary tuberculosis with basal involvement. Repeated analyses of the sputum will fail to demonstrate the tubercle bacillus. One or two negative sputum reports are not to be relied upon; carefully conducted repeated analyses of the sputum revealing no tubercle bacilli or elastic fibers are very valuable in excluding pulmonary tuberculosis. Sometimes one sees hemoptysis in these cases. The amount of blood is, as a rule, slight and not persistently repeated; so much so that the patient usually says that it comes from the teeth or from the throat. Practically every patient will complain of postnasal dripping, most marked in the morning on arising. Especially during childhood are cases of this type seen.

If the upper respiratory infections are not eradicated, a more serious condition may ensue. Nasal obstruction in children, associated with sinus infections, is a potent factor in producing this condition. I refer to chronic nontuberculous indurative lung conditions which are all too frequently met with in patients who have spent years in tuberculosis sanatoria. Two types of these are noted: one in which the condition is slight and in which there is principally a collapse induration of the apical tissues, and very few general symptoms of ill health, and the other which gradually leads to a severe, chronic, more generalized lung pathology. In the former type, scattered basal rales and harsh breath sounds are usually found besides the apical signs. The patients, as a rule, are in good health except for the discomfort from their nasal obstruction and dry cough. In the type with more generalized pulmonary pathology, are found signs which approach a chronic bronchitis, but they are not so confluent nor are the symptoms, purulent expectoration, temperature and dyspnea on exertion, so prominent. The sputum is scanty and the toxemia symptoms of tuberculosis are

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lacking. These two conditions are types more of *degree* of infection than they are disease entities and they often gradually merge into a generalized, chronic, bronchial inflammation.

Chronic bronchitis may gradually develop from these upper respiratory conditions, or follow an attack of influenza or pneumonia, or may be a distressing concomitant of a cardiac or nephritic disease. The differentiation from pulmonary tuberculosis ought to be clear cut and, if the salient differing characteristics were closely followed, fewer errors would result. Patients with chronic bronchitis, as a rule, appear to be in fair health; marked loss of weight, fever, tachycardia and prostration being absent. The lung findings are more generalized and predominately basally located. In the more chronic types, the apices show very slight changes and practically all the signs are in the lower portion of the lungs. A tuberculous patient with such extensive basal pathology would be considerably sicker, have higher fever, more prostration, tachycardia, greater loss in weight, and then too, tubercle bacilli and elastic fibers at such a late stage of tuberculosis would almost invariably be present. In these cases of chronic bronchitis, pneumococci, influenza bacilli and pyogenic-cocci, are usually found. The leucocyte count in pulmonary tuberculosis, uncomplicated by secondary infection, is not increased and the lymphocyte count is relatively high; in chronic bronchitis, the leucocyte count is higher and a polymorphonucleosis is the rule. If the count is carefully made, this differential point is valuable.

The configuration of the chest in chronic pulmonary tuberculosis will show noticeable assymetry and flattening, in marked contrast to the more barrel-shaped chest of the patient with chronic bronchitis. Whether the rales are dry or moist is of slight value; their location is the important factor. To remember that tuberculosis affects primarily and principally the upper portions of the lungs and chronic bronchitis the basal areas is to remember a valuable and fundamental fact. Although signs of cavitation and of lung consolidation are lacking in chronic bronchitis, the most important deciding factor is the difference in the location of the chest signs. If to this is added the lack in the patients with chronic bronchitis, of the toxemic symptoms present in pulmonary tuberculosis and the absence of tubercle bacilli and elastic fibers in the sputum, one has the chief differentiating truths between chronic bronchitis and chronic pulmonary tuberculosis.

Coexisting with, or without, a chronic bronchitis, the more serious chronic bronchiectasis may cause greater difficulty in differentiation from pulmonary tuberculosis. The patients generally appear to be in fair health and have very little fever. The subnormal morning temperature of tuberculosis is absent and consequently the decided difference between morning and afternoon temperature so suggestive of tuberculosis is lacking. The sputum is more paroxysmally expectorated, and at such times may be abundant, with comparative freedom from expectoration for hours. Then too, the coughing and expectoration are more dependent upon changes in posture of the patient. Although there is a cavity present in the lung in bronchiectasis, the physical signs are not as pronounced as in pulmonary tuberculosis; the breath sounds may be feeble, and large consonating rales may be heard over the bronchiectatic cavity. Over a cavity in pulmonary tuberculosis, on the contrary, the rales are large, moist and discrete, the breath sounds harsh, and amphoric breathing and definitely surrounding dullness are evident. It is generally the rule that bronchiectatic cavities are unilateral and single and that the opposite lung tissue is comparatively free from signs; whereas in chronic pulmonary tuberculosis the cavities tend to coalesce and the opposite lung is almost always diseased. The bronchiectatic cavity is found in the lower lobe and the lung apices are resonant to percussion, and contain no signs. Of course, in uncomplicated chronic bronchiectasis tubercle bacilli and elastic fibers are never found. As previously intimated, progressive deterioration of health is very slow in chronic bronchiectasis and very much faster in chronic pulmonary tuberculosis. We have seen patients with chronic bronchiectasis, who have continued for many years to actively work and earn their livelihood. Phthisical patients with the same degree of cavitation would be invalided therefrom.

Delayed resolution of pneumonic processes is sometimes most difficult to separate from chronic pulmonary tuberculosis. In cases which come under your observation during the acute stage, you may find it very difficult to differentiate because of the fever, tachycardia, prostration, and the expectoration of even fair quantities of blood, which may be present. It is easy enough to confuse such a case with the acute exacerbation of a chronic pulmonary tuberculosis or a case of chronic tuberculosis with a complicating attack of acute influenza. However, the freedom from apical involvement, the leucocytosis with polynucleosis, the sputum negative for the tubercle bacillus, and the history of acute onset, ought to suffice. In chronic cases the problem is more easily solved as

the findings presented are moderate dullness and rales basally located as a rule, with little or no symptoms of ill health otherwise, a normal pulse and temperature, with good appetite and strength, and usually very little expectoration.

Localized collections of pus within the thoracic cavity, which have opened through a bronchus, give less trouble in differentiating from pulmonary tuberculosis. The usual sites are within the pleura, the interlobar fissures, or the lung tissues. The acute abscess causes no difficulty and the larger purulent accumulations within the pleura give signs so distinctive, namely: flatness, decreased breath sounds and absence of tactile fremitus, that one should easily separate such a condition from chronic pulmonary tuberculosis. The more localized, walled off exudate is slightly more perplexing. The history of an acute onset, the basal location—with free apices—the leucocytosis, the absence of tubercle bacilli and elastic fibers in the sputum, the greater degree of physical vigor in the chronic pleural abscess cases greatly clarifies the situation. Chronic pulmonary abscesses usually follow a nose, mouth, or throat operation, occasionally an operative procedure elsewhere in the body, influenza, pneumonia, or an infected pulmonary embolus. There is the history of a stormy onset, high, septic fever and chills, profuse sweating, and the paroxysmal expectoration of, at times, foul and oftentimes hemorrhagic sputum, followed by a chronic stage of less acute symptoms. The abscesses are generally located in the lung bases, predominately in the right lung. Moderate dullness, decreased breath sounds and large, moist, consonating rales are heard over the abscess. The sputum may contain elastic fibers but the tubercle bacilli are absent. In a chronic tuberculosis of like severity and amount of expectoration, a diligent search would almost invariably reveal the tubercle bacilli.

Following any of the causes of pulmonary abscess, pulmonary gangrene may ensue. The sputum is horribly fetid and separates into three layers, the bottom layer containing lung tissue. The course is severe, with high septic fever, drenching sweaths, cough, and abundant sputum, and all leading very rapidly towards death. These symptoms are sufficiently obvious to differentiate pulmonary gangrene from chronic pulmonary tuberculosis, and when the location of the lesion away from the apex and the absence of tubercle bacilli in the sputum are considered, few mistakes should be made.

Spirochetosis bronchialis (Castellani) may, at times, be mistaken for chronic pulmonary tuberculosis. The sputum is often bloody but of a more fetid character than in tuberculosis. The lung findings are meager and may consist of only moderate dullness and moist rales. The patients remain in remarkably good health and vigor and have very little temperature. The sputum usually contains the spirochaetae bronchialis in large numbers. Leptothricosis and streptothricosis of the lung may be easily differentiated by careful study of the sputum in which these fungi will be found. Actinomycosis of the lung is a rare disease and may be differentiated by finding the characteristic actinomycotic granules in the sputum. Pleural pain, increasing dyspnea, perforation of the chest wall, and leucocytosis, are more common findings in pulmonary actinomycosis than in pulmonary tuberculosis.

Pulmonary fibrosis in individuals working in dusty trades is difficult to differentiate from chronic fibroid tuberculosis. In fact, pulmonary tuberculosis often coëxists with these conditions. Siderosis, chalicosis, and anthracosis are different types of pulmonary fibrosis, based on their respective etiologic factors. The history, the more generalized lung involvement with comparatively free apices, and the absence of tubercle bacilli, are the important factors.

Tumors of the lungs are often wrongly diagnosed as tuberculous. These tumors occur both as primary and as secondary growths. The most common tumors are carcinomata and sarcomata, although hypernephromata and endotheliomata of the pleura are occasionally seen. In rare instances, dermoid cysts occur and, if the cyst ruptures into a bronchus, hair may be found in the sputum. Echinococcus cysts have also been found and the hydatids recovered from the sputum. Carcinomata and sarcomata may develop very slowly, particularly the carcinomata, and the patients may remain in fair health for a long time, only complaining of cough, mild fever and some dyspnea and pain in the chest. Later, the tumor or tumors become larger and pressure symptoms, such as: enlargement of the superficial veins of the upper chest and neck, cyanosis of the face, unilateral dilatation of the pupil, and inequality of the fullness of the radial pulses, edema of the arms or difficulty in swallowing, may be noted. Pains and dyspnea are more pronounced in pulmonary carcinoma than in pulmonary tuberculosis. Massive pleural effusions are also more likely to occur in carcinomata and the fluid may be bloody, but this is not a constant finding. The presence of a carcinoma elsewhere will be of great value in pointing the way toward the corrective interpretation of the lung disease; then too, metastatic deposits above the clav-

icle may be found. The physical signs of tumor may be only flatness, decreased breath sounds and very few rales. As the disease progresses and the tumor enlarges, the heart and trachea are pushed toward the opposite side. At this stage the patient may present high temperature, cachexia, prostration, sweats and abundant purulent sputum. As heretofore stated, tubercle bacilli are almost invariably found in the sputum of a tuberculous case at the stage of tuberculosis which might simulate a late carcinoma of the lung.

Pulmonary syphilis occurs more frequently than is commonly supposed and may easily be confounded with fibroid phthisis. All the common symptoms of pulmonary tuberculosis, such as cough, expectoration, fever, loss in weight, hemorrhage and weakness, may be present. The physical deterioration is slower in syphilis than in fibroid phthisis. The chest signs are those of fibroid phthisis but the location of the disease is in the middle and basal portions of the lungs, the apices being rarely involved. A history of syphilitic infection, or the presence of syphilitic lesions elsewhere, is important. Tubercle bacilli are absent from the sputum and the Wassermann reaction is usually positive. The statement that the Wassermann reaction is ever positive in uncomplicated pulmonary tuberculosis is, in my opinion, an error. A positive Wassermann reaction in a patient with tuberculosis means, as a rule, that both diseases are present. These facts usually differentiate the two diseases, but, if doubt exists, the administration of antiluetic treatment will bring about marked improvement in the syphilitic cases.

It has been my purpose in this paper to stress particularly those diseases of the thoracic cavity, which most closely and most frequently simulate chronic pulmonary tuberculosis and to briefly mention the conditions which are less frequently observed. Extrathoracic diseases have intentionally not been considered. In the differential diagnosis of chronic pulmonary tuberculosis, it must be borne in mind that a thoracic condition in which there is a persistent absence of tubercle bacilli in the sputum, with lesions which are in the middle or basal portions of the lungs, without involvement of the upper lobes, and with the absence of signs of progressive toxemia and deterioration of health, is most likely not tuberculous.

ABSTRACT OF DISCUSSION.

Dr. W. C. Farmer, San Antonio: One of the most difficult diseases of the chest to differentiate from tuberculosis is influenza. These cases naturally fall into three classes: (1) Patients who have an already existing tuberculosis and develop an acute influenza; (2) patients with influenza who have quiescent tuberculous foci in the lung, both at the base and apex; and (3) other cases that are apparently well before an attack of influenza. After the acute attack subsides, the patient never seems to recover his strength and he remains below par. All three of these types of influenzal cases need thorough study and frequent examinations before a positive diagnosis can be made. I have learned from these cases that tuberculosis can be in the base of the lung. In differentiating tuberculosis from syphilis of the lung, I put great dependence upon the Wassermann. I do not believe a patient with only chronic tuberculosis will give a positive Wassermann.

Dr. C. M. Hendricks, El Paso: I have observed the differential blood count of a long series of tuberculous cases. In these counts, the percentage of small lymphocytes is always low.

Dr. S. E. Thompson, Kerrville: The most important thing in the diagnosis of tuberculosis is time. This is vital, also, in differential diagnoses, and especially is this true in incipient cases. The correct diagnosis cannot be made as a rule with one examination; in fact, the time is past when doctors are expected to examine a patient for ten or fifteen minutes and make a correct diagnosis. Careful observation and repeated examinations for prolonged periods are sometimes necessary in order to be sure of your diagnosis.

However, in dealing with tuberculosis there are certain cardinal symptoms which are almost pathognomonic of this disease. A *persistent* morning subnormal temperature around 97° F., a *persistent* afternoon elevation of temperature to 99.4° or 99.6° F., a pulse *persistently* high without any definite assignable cause, and a *persistent* sense of fatigue without sufficient exercise to produce it, are worth as much or more in the diagnosis of tuberculosis as any examination you may make.

Dr. M. L. Graves, Galveston: In the physical examination, the moist rales are the main thing; dry rales are unimportant. However, in making a diagnosis I place more stress on the clinical phenomena which the patient presents. Patients with thoracic disease can be placed in two classes: (1) those from 15 to 35 years of age. In all these cases be suspicious of tuberculosis, and especially suspect it if they present the following syndrome: a persistent afternoon elevation of temperature, an elevation of the pulse rate, anorexia and fatigue; (2) those from 35 to 70 years of age in which you should suspect lues or malignancy. Should you examine a case with lung symptoms within 30 days following a tonsillectomy, always consider a lung abscess. The abscess may be in the upper or lower lobe. One should always bear in mind foreign bodies in the lung; these foreign bodies may stay in the lung a long while, causing an abscess that gives only minor symptoms and that may be confused with tuberculosis. Syphilis of the lungs may produce some of the phenomena of tuberculosis, but I never saw a case in the young.

Dr. W. H. Ross, Houston: In any patient coming to a doctor, that is manifestly a chest case, tuberculosis should be considered. I believe the average practitioner misses many cases of incipient tuberculosis because he does not take time to make a careful history and study of his case. These minor things help a great deal in making a diagnosis. A single examination of a sputum that is negative is worth nothing. Sometimes the sputum must be examined from 12 to 14 times before the tubercle bacilli are found. Chronic abscesses are often overlooked; when a patient expectorates large quantities of sputum and there is a paucity of physical signs, be suspicious of a chronic abscess. Influenza is often hard to differentiate. I have found that rales heard all over the chest with not much illness or constitutional symp-

toms, are likely to be due to influenza. If a patient had all these signs from tuberculosis, he would be a very sick man. The Von Pirquet reaction is important; I use it and confide in it. A positive test means that that person's blood is fighting tuberculosis or has been doing so recently. This gives the doctor enough clew to be on his guard. A negative test is not conclusive, but does mean something.

Dr. J. B. McKnight, Sanatorium: In making a diagnosis of chest diseases, including pulmonary tuberculosis, four things should be kept in mind: first, a thorough clinical history; second, a thorough physical examination; third, a complete *x*-ray examination, and fourth, a competent laboratory report.

Dr. Harold Freed, Dallas: Papers of the type just read by Dr. Greer should be presented at every district and state medical meeting. The various diagnostic points are well taken and should be of aid in the diagnosis of the disease discussed. The real solution of the tuberculosis problem will be found in the early recognition of pulmonary tuberculosis and its proper differentiation from other respiratory affections. The more the various refinements of our diagnostic technique are discussed, the more successful will we be in bringing our problem to the attention of the general practitioner who meets it first.

I wish to mention the importance of another type of tuberculosis—that of tracheo-bronchial glandular tuberculosis of the adult, the differential diagnosis of which presents great difficulties. In the severe cases with which I came in contact in the past year, the physical signs and *x*-ray findings had been negative for a period of several years, as shown by carefully kept records. The patients were emaciated and expectorated a purulent sputum which contained tubercle bacilli only at rare intervals.

Dr. Greer (closing): I think that the case presenting the most difficulty in diagnosis is the one that returns from the sanatorium hale and hearty, and later develops an attack of influenza. To be able to differentiate whether this patient is having an accompanying flare up of his old tuberculous process, requires plenty of care, patience and skill. In reference to a tuberculous process causing a positive Wassermann, in a series of 300 cases, I have never seen a tuberculous patient have a positive Wassermann unless he gave a positive history of lues. I cannot agree with Dr. Ross in his opinion of the Von Pirquet reaction; I have no confidence in it. I must differ with Dr. Freed in the diagnosis of tracheo-bronchial tuberculosis. Personally, I have never seen a case without involvement of the pulmonary tissue. I agree with Dr. Thompson that time is an important element in the diagnosis of tuberculosis. This can be easily done in a sanatorium, but oftentimes the doctor is called out of town to see a case that has to be diagnosed in one examination. There are other cases in which circumstances do not permit of delay. I believe that Dr. Graves misunderstood me with reference to rales. The point I wished to emphasize in my paper was that the position of the rale was of more importance than its character.

Pasteur Antirabic Preventive Treatment (Harris Modification)-Lilly (New and Nonofficial Remedies, 1925, p. 343).—Supplied in emulsion in syringes ready for use. The package containing the first seven doses is sent from the nearest Lilly depot; the second package containing the last seven doses is sent out from the home office. Eli Lilly & Co., Indianapolis.—*Jour. A. M. A.*, Aug. 22, 1925.

CONGENITAL HYPERTROPHIC PYLORIC STENOSIS.*

BY

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The purpose of this brief paper on pyloric stenosis in infants is to urge an early diagnosis and relief by prompt surgical measures. The first record of this condition was reported by Beardsley of Connecticut, in 1778, who stated, "A child of a respectful farmer was attacked with a puking or ejection of milk and of every other substance it received into its stomach almost instantaneously, and very little changed. The feces were in small quantity and of an ash color which continued with very little variation till its death." Two days after death he evidently held a post mortem and concerning which he says, "I next examined the stomach which was unusually large, the coats were about the thickness of a hog's bladder when fresh and distended with air. The pylorus was invested with a hard compact substance or scirrhosity which so completely obstructed the passage into the duodenum, as to admit with the greatest difficuly the finest fluid."

Fig. 1. Showing practically complete obstruction with only small amount of barium passing through the pylorus in 3 hours. Surgical case. (Age of patient 7 days.)

Williamson reported the second case, in 1841; Dawski the third case in 1842. Then followed a period of more than forty years before other cases were observed. In 1887, Hirschsprung reported two cases. After this the profession became slowly aware of this condition when, in 1906, 121 cases had been reported. Of 113 cases, 50 were reported from Germany and 49 from Great Britain. During the next two years one observer re-

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ported 400 cases (Ibrahim). In recent years reports of cases are of frequent occurrence, but it is evident that an immense number of infants have gone on to a fatal termination with the condition undiagnosed. These infants at birth usually present nothing abnormal. Pfaundler states that 50 per cent show symptoms between the fourth and fourteenth

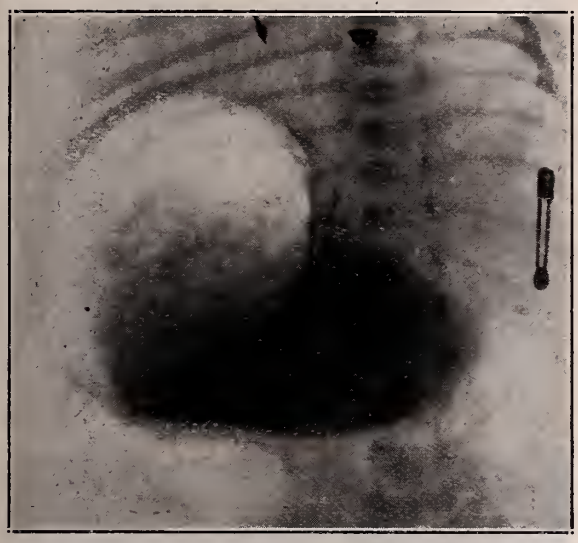

Fig. 2. Complete obstruction. Plate made after washing out stomach and filling with barium through tube. (Age of patient 5 days.)

day; 25 per cent from the second to third week; and 25 per cent from the third to sixth week. The great majority are the first born and males. Holt reported 49 males and 8 females, of which 52 were breast and 5 artificially fed, which should be remembered in discussing the cause of the condition, eliminating indigestion. A child that cannot digest and live on its mother's milk is in a bad way from some cause.

"The anatomy of the pyloric canal is by no means constant in form, and undergoes striking changes in accordance with later physiological conditions of the stomach; there is no part of the stomach which is more definite and distinct. The pyloric canal is a cylinder about one inch in length, and in a full-term child is generally found contracted and its lumen filled with longitudinal folds of mucous membrane. During life the pyloric canal is kept closed except during digestion, when it is periodically relaxed to allow the passage of acid gastric contents into the duodenum. If the contents are too acid, the quantity allowed to pass is lessened and the pylorus does not again relax until the contents in the duodenum have been neutralized by the alkaline juices there. This constituted the duodenal reflex.

"The pyloric canal is characterized by the great development of both longitudinal and circular muscular fibers. These latter completely surround the pylorus and constitute the sphincter. The longitudinal fibers take their origin in the wall of the pyloric end of the stomach and become more numerous as they reach the pylorus and there form a distinct longitudinal coat. The more superficial fibers pass on to the duodenum, while many of the others spread out in the form of divergent fasciculi, some of which reach to the submucosa. Thus the longitudinal fibers have an action antagonistic to the sphincteric fibers and act as a dilator of the pylorus when the nervous mechanism concerned in inhibition brings about a relaxation of the sphincter. Specimens of the pyloric canal of a full-time fetus and of the child, show very distinctly that there is no sudden or abrupt transition between the muscular substance of the sphincteric cylinder and that of the sphincteric ring, but the fasciculi of the latter are quite cut off from the circular muscular coat of the duodenum by a distinct connective tissue septum."

The spasm theory was started by Pfaundler, in 1897. He believed that a permanent contraction of the musculature at the pylorus may appear as a hyperplastic tumor causing obstruction. While it is accepted that there may be a pyloric spasm there is no evidence that it produces an hypertrophy that is peculiar to the first week of life, and recovery from spasm under medical treatment mistaken for true hypertrophy has led to an unduly favorable estimate of the value of medical treatment in true hypertrophy. True hypertrophy varies in degree from a complete obstruction which is fatal, if not re-

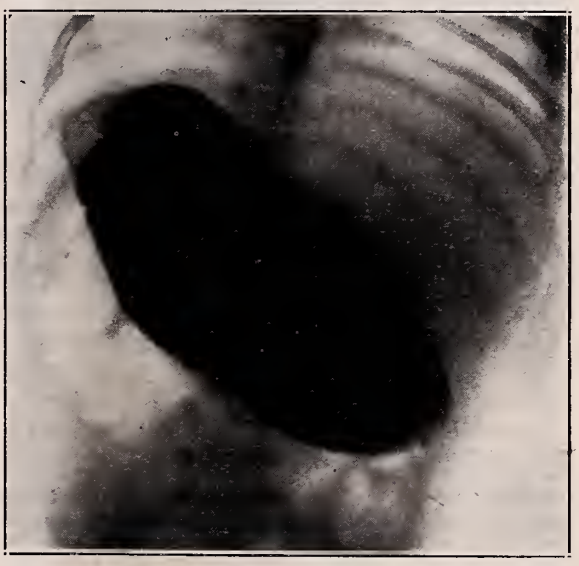

Fig. 3. Complete obstruction. Plate made after washing out stomach and filling with barium through tube. (Age of patient 6 weeks.)

lieved by surgical means) to a hyperplasia, which may be compatible with life. To those who are familiar with the clinical picture and the operative findings there is no doubt as to the existence of a definite organic obstruction, relieved only by surgery. This is quite a bold statement in the face of those who claim and produce statistics claiming to get results and relieve these cases. But why waste three or four months on cases by medical treatment that can be relieved in ten days by surgical measures. The operative findings in these cases consist of an olive

shaped body three-fourths of an inch in length with no evidence of any inflammation, no fixation, and having the consistency of cartilage. It is sharply defined and there is no gradation between the mass and the tissues of the stomach and duodenum. It is evident that the principal structures at fault

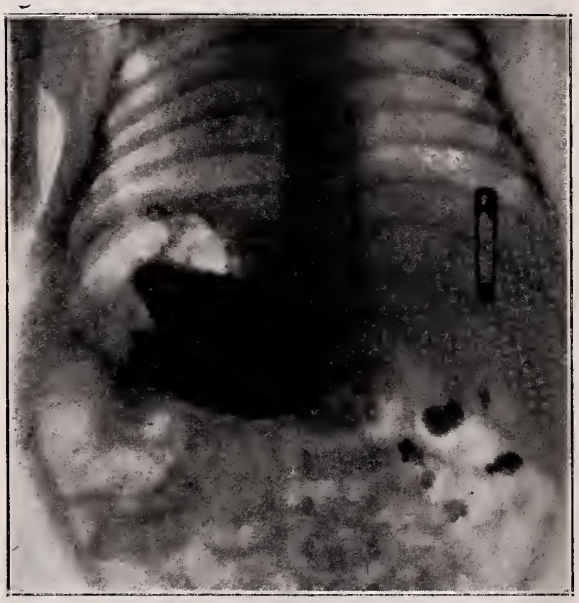

Fig. 4. Plate shows retention after 4 hours with no barium in small intestines.

are the circular muscular fibers of the affected area together with a thickening of the folds of mucous membrane plus edema and that the pylorus may not be entirely closed allowing small quantities of food stuff to pass through giving an appearance of a normal stool, or small quantities of barium found in the intestines which will lead to errors of diagnosis.

"As to the permanency of the hypertrophy and of the obstruction, one observer states that by the examination of the stomachs of infants who have recovered under medical treatment from what has been clinically diagnosed as hypertrophic pyloric stenosis, and died from other accidental causes, he found that the pyloric hypertrophy still remained, but that there had been developed a compensating hypertrophy of the stomach walls.

"Eagleson of Seattle, proved by skiagrams that in two cases four years after operation and in one case six years after, the bismuth was passing by the anastomotic opening and not by the pylorus."

The symptoms of this condition are readily recognized and an early diagnosis is essential. They are vomiting, gastric peristalsis, loss of weight, constipation and characteristic stools, and tumor. Vomiting usually occurs immediately after the taking of food without any apparent cause; it may be delayed minutes or hours, but the amount of vomitus will closely correspond to the amount ingested, and bile is not found in it. Gastric peristalsis or the gastric wave is noticed soon after the taking of food or water, and continues until the stomach empties itself. Even mothers will call your attention to the gastric wave. There are from three to five waves per minute.

These cases lose weight rapidly and become greatly emaciated in a short time and present diagnostic features in the face, abdomen and skin. Constipation is always present, the stools consisting of bile stained mucous. When small quantities of food pass the pylorus, particles of undigested food will be found in the stools. A tumor may be felt in about 30 per cent of the cases. Great stress is usually given this sign, but there are conditions that sometimes prevent its demonstration, such as gas, overhanging liver, muscular rigidity (not from pain, but from the irritation of the examination). We do not believe in the further growth of the tumor after birth, but a tumor may not be found until the child is greatly emaciated. The urine is greatly reduced from lack of

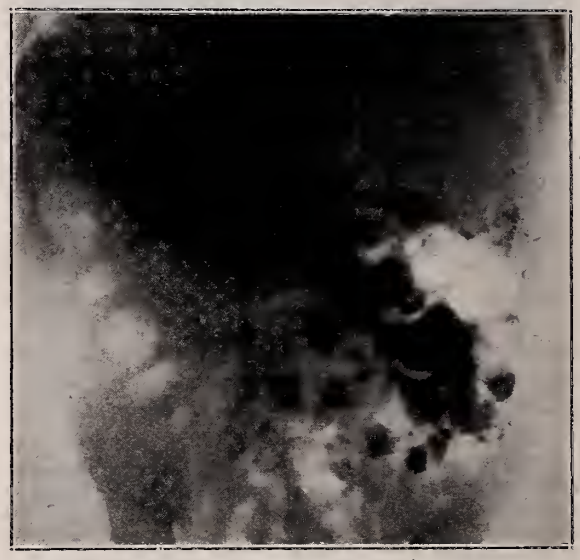

Fig. 5. Plate made 3 hours after taking barium showing amount passed through pylorus into small intestines. This case was relieved by medical treatment. (Age 12 days.)

fluids. Anuria has been noted. Other conditions that give similar symptoms to pyloric stenosis are stenosis of cardiac orifice and atresia of the duodenum. *X*-ray examinations should always be made, but they only confirm the diagnosis, as do other laboratory examinations.

Holt says that 50 per cent of those treated medically die; Scudder says that from 80 to 90 per cent die. Let us look at the surgical side of the question.

I recently requested Dr. E. C. Mitchell of the Childrens Clinic of Memphis, to give me

his records of this condition for the past four years. His reply was:

"Our reports are as follows: Cases treated since 1910 for pyloric stenosis, both medical and surgical, total number 81; cases operated 38; cases operated in private practice in last series where Friedt Ramstedt was done 30, all recovered; early cases operated

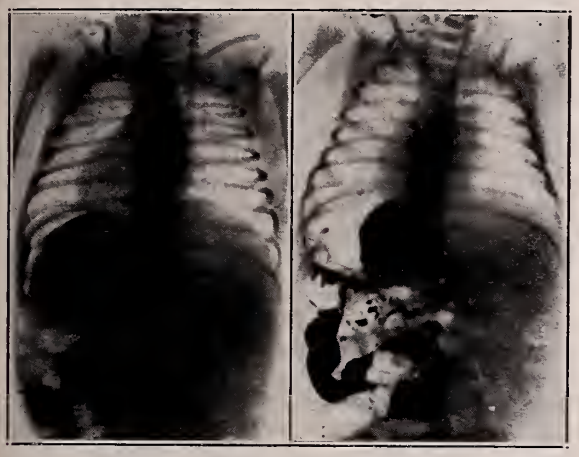

Fig. 6. Differentiating stricture of cardiac end of esophagus. Plate shows stomach and esophagus filled by a tube inserted through the cardiac opening and stomach filled. Later the tube was withdrawn into esophagus until it was filled. Showing stricture at the cardiac orifice.

Fig. 7. Showing emptying of stomach and regurgitation from the esophagus. (Same case as in Fig. 6.)

on in private practice before other than Friedt Ramstedt, 3; gastro-enterostomy, 2 deaths; cases operated on general hospital service, Friedt Ramstedt, 5; two

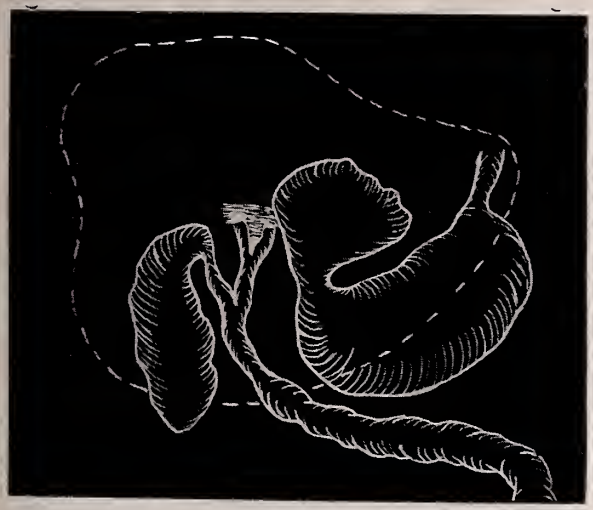

Fig. 8. Atresia of duodenum. Drawing shows liver, stomach, duodenum, gall-bladder, cystic and common ducts with the common duct continuing into duodenum and no connection between the first and second portion of the duodenum.

deaths—both cases of inanition before operation; cases treated medically, 43; deaths, 5. These 5 cases were not operated because patients were received in such condition that operation was deemed hopeless.

"All cases where their condition permitted, were treated first medically for a period, on an average, of one week. If loss of weight continued and vomiting did not subside partially, in spite of x-ray findings operation was recommended. The x-ray was used as accessory diagnosis only. Some cases showed barium would pass through pylorus, indicating the case to be spasm, when the clinical results would show cases to be, undoubtedly, stenosis. As all cases are, undoubtedly, stenosis, plus spasm, plus edema, we classify our cases into simply medical and surgical stenosis."

At the Baptist Memorial Hospital in Memphis, the records show that since 1920, 30 cases of this condition were admitted; 27 were operated with no deaths, the other 3 being treated medically, but the record clerk could not give me the ultimate result as they left the hospital showing some improvement. Strauss has operated on 410 cases with 8 deaths—the deaths due to inanition and not to the operation. The technic used in the number of cases mentioned was the Ramstedt technic, which can be performed in from ten to fifteen minutes with local or general anesthesia. The condition should be recognized early. The treatment for this condition is surgical. The general opinion of observers is that the pathology persists and, therefore, there is no excuse for medical treatment.

ABSTRACT OF DISCUSSION.

Dr. Q. B. Lee, Wichita Falls: It is often a question when these cases become surgical. At first they are treated medically by the pediatrician or the general practitioner. The majority of cases showing symptoms of pyloric obstruction will respond to medical treatment. However, if they are losing weight and do not respond to treatment, they should be referred to the surgeon. The treatment should not be kept up until the patient has lost more than 20 per cent in weight, since, if they are moribund, the operation will not result in a cure.

AN ANALYSIS OF A SERIES OF CASES OF UVEITIS WITH SPECIAL REFERENCE TO ETIOLOGY.*

BY

F. H. NEWTON, M. D.,
DALLAS, TEXAS.

This paper represents an analysis of the etiological factor, or factors, in a series of seventy-five cases of uveitis, seen during the last year or two. The choice of the cases was determined entirely by our ability to obtain sufficient coöperation from the patient to enable us to make a complete examination. The routine procedure followed was: (1) Careful personal and family history—a matter of very great value in most cases; (2) general systemic investigation by the internist or family physician; (3) complete blood and urine examination, including Wassermann and blood chemistry; (4) spinal fluid examination, though this is considered more important in optic atrophy; (5) clinical and x-ray investigation of the teeth and sinuses; (6) intradermal tuber-

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 5, 1925.

culin test, strengths of 1 to 1,000,000, 1 to 100,000, 1 to 10,000, and 1 to 1,000 being used along with the normal saline control. The 1 to 1,000 is omitted if the patient is suspected of decided tuberculous involvement, and (7) the usual eye examination, including refraction, fields, ophthalmoscopic findings, etc.

In presenting this analysis, I am not trying to add anything new to the present knowledge, but hope that the resultant discussion may sharpen your zeal for more diligent searching for the focus or foci of infection underlying our cases of uveitis. The masterful presentations of De Schweinitz and Fuchs, given to the International Congress of Medicine at London in 1913, established for all time the specificity of uveal infections, but I feel that, at intervals, it is well for the profession to pledge themselves anew to a determination to search out the fundamental causes of their troubles. I am considering primary infections of the uveal tract—primary only in the sense of not being secondary to some other lesion of the eye itself, as corneal ulcerations. I have followed rather closely Vernon A. Chapman's classification of endogenous infections of the uveal tract, as follows:

1. Constitutional diseases or disorders of metabolism, such as gout, rheumatism or diabetes.
2. Specific infectious diseases, such as tuberculosis, syphilis, gonorrhea or influenza.
3. Blood diseases, such as anemia.
4. Renal disorders and anomalies of urinary secretion, such as nephritis, lipemia or oxaluria.
5. Auto-intoxications, such as in intestinal disorders or menstrual disturbances.
6. Local diseases and infections in the rhino-pharynx, tonsils, teeth, accessory sinuses, skin, etc.
7. Sympathetic ophthalmia.
8. Endocrine disturbances.

I doubt the advisability of mentioning rheumatism and gout as separate entities, for each can be ultimately traced to some focus of infection. I feel that the term "rheumatic iritis" should for all time be discarded and the cases of undeterminable origin frankly placed in the unclassified list.

Of the 75 cases here considered, five were definitely shown to be secondary to tonsillar infection, as very rapid or moderately rapid improvement followed removal of the tonsils. Three of the five cases showed marked improvement within a few days. All five patients had acute uveitis and ranged in age from 17 to 38 years. The absence of chronic uveitis definitely attributable to diseased tonsils is noticeable.

Ten cases were classed as syphilitic, seven of which had positive Wassermann's, and all of which improved very decidedly upon antiluetic treatment. The ages ranged from 25 to 60 years. The involvement was practically always acute. In acute cases, where the Wassermann is negative and no other cause is found, I feel that antiluetic treatment should be administered without delay, but one must be careful not to allow himself to try the therapeutic test first, and then, if that finally fails, begin a systematic search for some other possible factor of etiology.

Eleven cases were ascribed to dental infections on account of the improvement following the extraction of involved teeth. Burton Chance mentions the importance of pyorrhea as an etiological factor, but pyorrhea, unassociated with deep root infections, seems to be an uncommon cause. The relatively slow improvement of this group and the preponderance of chronic involvement compared with the rapid improvement of the tonsil group and the decided tendency to acute manifestations is striking, though, of course, the number of cases is too small to be conclusive. The ages range from 23 to 70 years. The younger the patient the more acute is the situation likely to be.

Six cases were definitely attributable to sinus infection, the uveitis being chronic in all cases, with ages from 35 to 65 years. Four were maxillary antrum infections, all of which were operated through the canine fossae, and pus and polyps removed. Two were cases of chronic ethmoiditis with polypus formation. All gradually improved after operation. At this point, I should like to make a statement that will apply to the whole analysis. All of you have seen cases of uveitis improve gradually, or, at times, rapidly, the cause of the disease never being determined, so that fault can be found with any classification. But I have tried to be fair, and have assigned cases to a special heading only when the indication was really definite.

Sixteen cases were listed as due to renal and vascular diseases, most of them being cases of chronic chorioretinitis. Two were associated with acute kidneys of pregnancy. Of the other fourteen, twelve had systolic pressures of 170 mm. or above, and seven a pressure above 200 mm. The ages ranged from 27 to 75 years, four being below 50 years and ten above 60 years. The relative value of the renal and vascular elements

makes an interesting subject of discussion, the two being hard to separate. The extremely high blood-pressure is noticeable in nearly all cases.

The one case attributed to the recent epidemic of influenza may be questioned, but the rapid improvement under treatment of the "cold" both locally and with "cold" serum, after the use of arsenic intravenously had failed to give any relief, and the absence of any other definite cause, demand consideration.

Two cases were noted as tuberculous. One of these was seen by the elder Weeks, of New York, and so diagnosed. This patient was treated only in a general way and his condition has remained stationary, the lesion being absolutely quiet for four years. The other case, a recent one, was seen by Hiram Woods, of Baltimore, and diagnosed as having a "tuberculous susceptibility," if not definitely tuberculous. Both gave a positive tuberculin skin test with the 1 to 100,000 dilution of old tuberculin. Both were cases of chorioretinitis. In this connection, Friedenwald's remark in a recent article is interesting. He says, "While it is alluring to attribute many of these conditions to tuberculosis, all will agree that a clear and indubitable diagnosis of the tuberculous character of these affections is most difficult."

Among the gastro-intestinal auto-intoxications, I have taken the liberty of classifying five cases. Two cases gave histories of repeated attacks of acute iritis, definitely improved each time by careful dieting. Three were poorly nourished, constipated individuals past fifty years of age, who were improved or held stationary by a regime for relief of constipation and general upbuilding. All the latter were chronic cases. In 1912, De Schweinitz, in a paper before the New York Academy of Medicine, emphasized the relation of gastro-intestinal auto-intoxication to uveitis. Incidentally, he regarded the presence of indican in the urine of no significance in this connection. Hunter and Reeder have each reported cases of recurrent uveitis, associated with attacks of appendicitis, permanently cured by appendectomy.

And last—but by no means least—comes the list of unclassified cases, 19 of the 75 cases falling in this class. But in defense, let me hasten to add that 9 of the 19 represented old lesions usually of retinochoroiditis which had been stationary for two years, at least. That is, the storm had passed—whatever its cause—and apparently left no clue as to its identity. The remaining 10, we were unable to classify definitely. One of these patients, age 17, had had repeated acute attacks of uveitis and had been to several large clinics, including the Mayo clinic, with no success as to determination of the cause.

In connection with these investigations, the possibility of the presence of several etiological factors, must always be held in mind, the finding of one cause being no excuse for stopping the search. Several cases have been reported with lues, but with a uveitis definitely proved to be due to some other cause. Physicians are too much inclined to be satisfied when one probable or possible cause has been found.

Gonorrhea, so frequently mentioned in literature as a cause of uveitis, was not identified as a factor in this series. It occurred to me that the reported improvements obtained by the administration of gonococcus vaccine might have been just as definite if some other vaccine had been used. In other words, the specific action may be doubted and, therefore, the establishment of gonorrhea as the cause was not absolute. Diabetes as a causative factor was also not noted.

As a final point, I wish to emphasize the great importance of preparing prospective operative cases by finding and removing possible causes of endogenous infection of the uveal tract. The operative trauma in the presence of a focus of infection may be the spark to set up the uveitis. I have in mind a case of violent endogenous uveitis following a simple discission which might have been avoided had two abscessed teeth, later located and removed, been removed prior to operation. I feel sure that we are all guilty on this score and need to be more careful to institute prophylactic treatment of uveitis in operative cases.

The number of cases analyzed is too small to justify definite conclusions, but this report is submitted as preliminary to further investigations at a later time.

ABSTRACT OF DISCUSSION.

Dr. Frank Boyd, Fort Worth: While listening to this paper, my mind went back to mistakes I made years ago in cataract work. Once I forgot to examine the lachrymal sac. I found after operation that the patient had a chronic dacryocystitis and ozena. I do not make such mistakes now. That patient lost his eye and the eyeball had to be removed. He never came back to me any more but went to another doctor, who also did not look into the case as he should, and he lost the second eye. One cannot be too careful in examining into every possible cause for uveitis. I am careful now—probably overcareful. One cannot be too careful in preparing his patient for intraocular operation, because some focus of infection may give rise to uveitis.

Dr. V. R. Hurst, Longview: I saw a patient recently who had just had a cataract extraction by one of our leading men, so I am sure that the technique was correct. She had no vision, the cornea being opaque and the eye so very painful that it had to be enucleated. She had a mature cataract in the other eye, which she wanted me to remove. In looking for a source of infection, I found three badly infected teeth. After having these removed, the cataract was extracted with perfect results, getting a vision of 20/20. Evidently, the first eye was lost because of the infected teeth.

Dr. J. M. Woodson, Temple: I do not think the fact that the teeth have all been removed excludes the possibility of dental origin of uveitis. One of my patients has been wearing complete dental plates for two years, which had never been comfortable on account of the disturbance about the gums. An *x*-ray was made and several fragments of bad tooth roots were found, and when these were removed the uveitis cleared up promptly. There is no harm in making an *x*-ray picture which will find embedded roots or unerupted third molars, if there.

Dr. Ray Daily, Houston: I want to express my appreciation of the thoroughness with which the subject was presented. While it is wise and safe to eliminate ever focus of infection and carry out the preoperative preparation of the patient as thoroughly as possible, I believe that we are overemphasizing the importance of focal infection as a factor in postoperative uveitis. The most striking impressions one gets from the European clinics are from the foci of infection, which stare you in the face, such as decayed teeth and broken roots in nearly every cataract patient. And yet, in a clinic like those at Vienna, you see very little postoperative uveitis, in spite of this. I think that it would be well to be careful in blaming a focus of infection for a postoperative inflammation; it must not be forgotten that undue traumatism to the tissues and carelessness in the sterilization of instruments are probably as great, if not greater, factors than focal infection.

Dr. John O. McReynolds, Dallas: Our conclusion is, that while we have failed to trace the cause of every case of uveitis, yet we are encouraged to persevere more than ever. Our failure to find the etiology in every case does not lead to relaxation of effort, but we will put forth renewed energy to find the cause, feeling that only in this way have we discharged our full duty.

Dr. Newton (closing): It is a debatable question whether uveitis is a toxic condition or due to an actual transmission of infected emboli to the uveal tract. The younger Gifford favors the latter view. Dr. O'Neill mentions its occurrence usually in adults, but it is not infrequent in children as young as 15 years. Dr. Daily is right in emphasizing the importance of gentleness in technique in preventing iritis, etc., but the prophylactic elimination of foci of infection prior to operation should be carefully considered. Nor can one depend on a developed immunity in chronic infections. The operative trauma may be the spark that will break down the immunity barrier and cause a localized involvement of the uveal tract. The badly infected mouths which she mentioned are pyorrheal in character usually and, as I have indicated in the body of my paper, pyorrheal infections are not found to be frequent causes of uveitis. The root infections are more important. Dr. Woodson's discussion emphasizes the necessity for careful investigation for remote causes. Dr. Boyd's lachrymal sac case could not be considered in a treatise on endogenous infections.

CHOROIDITIS: REPORT OF A CASE RESULTING FROM DISEASED ETHMOIDS AND SPHENOIDS.*

BY

EDGAR H. VAUGHN, M. D.,
TYLER, TEXAS.

Choroiditis means any inflammation of the choroid or middle coat of the eyeball. Fuchs tells us that if confined to the choroid there are no external signs of inflammation or pain. The oculist gains his information by use of an ophthalmoscope and the patient only complains of disturbed vision, but if the inflammation extends over the anterior portion of the uvea, it can be recognized externally through symptoms of iritis and cyclitis.

Choroiditis is known as non-suppurative and suppurative. The non-suppurative is the more common type and usually runs a chronic course. All forms are exudative. The non-suppurative choroiditis includes the serofibrinous, plastic, disseminate, diffuse, areolar, circumscript, and the hemorrhagic, sclerochoroiditis anterior, and some forms of central choroiditis. In the suppurative type the inflammation extends, in practically all cases, to the anterior division of the eye and usually involves the inner coats of the eyeball and sometimes, in severe cases, is really a panophthalmitis.

Choroiditis may, like iritis, depend upon constitutional disorders, infections, toxins and injuries, or upon diseases of other parts of the eye. Syphilis, tuberculosis and traumatism are among the chief causes. Choroiditis has been ascribed to disturbances of nutrition, nephritis, anemia, chlorosis and acute infectious diseases, and to infections due to and arising from the nasopharynx, accessory sinuses and teeth (pyorrhea alveolaris).

Acute, plastic choroiditis has been ascribed to tonsillitis, oral sepsis, intestinal toxemia, auto-intoxication, typhoid fever and other infectious fevers and pneumonia. Gradle suggests that the infective material from the accessory sinus and other foci of infection may gain access to this region through the posterior ciliary vessels. Stephen Mayou states that non-suppurative inflammations of the uveal tract are often due to pyogenic organisms of diminished virulence; for example, staphylococcus albus derived from distant foci of infection.

The ophthalmoscope shows alteration in the uniform dull red surface of the eyeground caused by absorption of pigment,

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 5, 1925.

patches of pale yellow color with ill-defined boundaries due to recent exudates, patches of white color, due to exposure of sclera (atrophic choroiditis), patches of black pigment, many shapes and usually on the edges of white spots, and absence of external manifestations, except in acute purulent types. Often there are changes in the vitreous and lens. Subjective symptoms peculiar to choroiditis, Dr. Schweintz says, do not exist. Pain is not present except in the purulent form and, in such cases, that may be complicated with iritis. The degree of disturbance of vision is dependent upon the location of the lesion or lesions and the amount of atrophy. If the spots are peripheral, the vision may be good; if in the macular region and of large area, the vision may be practically nil. Of course, if there are secondary changes in the vitreous and the lens, the vision is altered accordingly. The field of vision may be markedly diminished, especially if there is atrophy of the optic nerve. The displacement of the retina, caused by the exudate from the choroid, makes objects appear larger or smaller. In the earlier or acute stages the patient is annoyed by light.

A choroiditis may be sudden in onset and pursue an acute course; for example, an acute type in the posterior of the eye may result in a permanent myopia, or as purulent forms of the disease. However, it usually pursues a slow and chronic course, beginning with an exudate or hemorrhage, and passing through the stages of absorption, atrophy and pigment accumulation. Complications occur in the retina (retinochoroiditis); in the optic nerve (optic atrophy); in the vitreous (vitreous opacities); in the crystalline lens (posterior polar cataract); in the iris (iridochoroiditis), and in the sclera (scleroticochoroiditis).

The prognosis is always grave; though careful treatment may preserve the sight. In many cases vision is markedly diminished and even blindness may result. Of course, the amount of vision left is dependent upon the location and the number of lesions.

The treatment depends, of course, on the cause. The syphilitic cases respond very readily to antisyphilitic treatment, but one should lose no time in pushing the treatment when the cause is properly ascertained. Unfortunately, many situated in small towns, like myself, do not have adequate laboratory aids. If the lesion is tuberculous, use tuberculin, proper diet and rest. Rest from close work is very essential in all acute types. If the trouble is from diseased tonsils, get rid of them; the same may be said of bad teeth. If from diseased sinuses, do all you can to eliminate the diseased condition. Sometimes, men with all the modern methods of ascertaining the etiology of choroiditis fail miserably. In other words, it cannot yet be done.

CASE REPORTS.

Case No. 1.—Miss A. M. was a student at Tyler High School, at the time of the first attack at the age of 17 (1921). Her father and mother are both living and in excellent health, and also a sister and two brothers are living and in good health, with no eye trouble in any of the family. In other words, the family history is negative. On December 9, 1921, she came to me saying, "About two weeks ago, my left eye began suddenly to quiver and jerk. I had a severe headache and my eyes felt tired and heavy. I can't see as well as I did, and have specks before the eyes." There were no external manifestations. Vision at this time was: O. D.—15/13; O. S.—15/39. I used homatropin and found with the retinoscope that there was a blurred effect in the left eye. An ophthalmoscopic examination of the right eye showed the fundus to be normal, but the left fundus showed a small hemorrhage below and a little to the outside of the nerve head, which showed a slightly congested condition.

Her family physician was requested to examine her urine, heart and lungs, but reported everything negative. I found her teeth in perfect shape and her tonsils enlarged, but not appearing to be giving trouble (no one knows, however, when they are not giving trouble). There was considerable deflection of the nasal septum to the left, so much so that it was impossible to properly examine the anterior end of the middle turbinate. However, there was no scabbing or history of blowing out secretions regularly. A +0.50 sphere gave a vision of 15/11 in the right eye and 15/39 in the left, which was not improved by any lens. I had her removed from school, although she lacked only a few months of graduating and was leading her class. I put her on a saturated solution of potassium iodide in increasing doses, told her to drink lots of water, and limited her diet. On December 10, 1921, I removed her tonsils, hoping to increase her resistance and possibly to remove an infective focus. On December 29, 1921, her vision was O. D.—15/11; O. S. 15/39. On January 3, 1922, it was O. D. 15/11; O. S.—0.50sp.—50 axis 180=15/24 (doubtful). On January 10, 1922, it was O. D.—15/15; O. S.—15/19. On January 17, O. D.—15/11, O. S.—15/16, the patient saying she knew her vision was clearing up. On April 10, 1922, refraction under a mydriatic showed: O. D.+0.50sph., 15/11; O. S.+50 ax, 90=15/15. Glasses were given her. The opthalmoscope showed the right fundus to be negative and no perceptible inflammation or signs of choroiditis in the left one. During the fall of 1923 and spring of 1924, she taught school and got along fairly well with the exception of an occasional headache and burning, itching and twitching of the eyeballs. In January, 1924, I gave her eyelids a few local application of 2 per cent $AgNO_3$, which seemed to satisfy her—it evidently did some good. On September 4, 1923, I refracted her eyes again and found her vision was: O. D.+0.50 sp. ⌒0.25 ax. 90=15/15; O. S.+0.25⌒+0.50 ax. 90=15/15.

From June 2 to August 9, 1924, she stated that she had persistent, dull headaches over the eyes and almost constant jerking of eyelids, for several days in succession. At frequent intervals a skim would

appear over the eyes, and she stated, "I would often find that I was rubbing or blinking them in an attempt to brush this mist away." She was at this time attending the Stephen F. Austin Normal School and working hard and doing extra clerical work to help her way through school. She came home about October 5, and came to my office for assistance. I immediately set out to ascertain the cause of these symptoms which she described in her own words as follows: "There has been a continuous jerking of the lids, a nervous, drawn feeling in the eyes proper, and a peculiar and altogether new sensation between the eyes where my glasses rest upon the nose. These new sensations are quite persistent, being increased in intensity by light, both artificial and natural, and relieved only temporarily by sleep. The nerves seem as if they are pulled and twisted toward the center of the nose, and even the nerves of the nose feel tense and strained. These pains and sensations seem to travel over definite nerves or routes and usually in rapid and systematic succession. After several hours of such sensations the eyes and nose feel cold, numb and weak. These pains are more intense when close work is done or at any time when the eyes are intently focused or concentrated upon any object."

I dilated her pupils and found the right fundus still normal and with +0.50.sph.⌒+0.25 ax. 90 (her old lens) her vision was O. D.—15/13; O. S.—15/24. Ophthalmoscopic examination of the fundus of left eye showed two fairly good sized choroid spots below and some distance from the nerve head, and also more than the normal showing of the choroid about the ring of the nerve externally. The blood-vessels were more or less congested, but there was no distinct hemorrhage like I had found in December, 1921. She complained of not seeing certain objects clearly—she could see only parts of them, the top especially was not distinct—and of spots before eyes. Her nasal septum was deflected to the left, so I could not explore the anterior end of the left turbinate or the region of the ethmoids, so on October 7, 1924, I did a radical submucous resection of the nasal septum, and felt from the enlarged diseased appearance of the ethmoids that I had found the cause for her trouble. However, I did only the submucous resection at that time, as the patient was not at her best. I felt that there was some secretion from the ethmoids, but not necessarily pus. I used the suction apparatus after three or four days to assist drainage and aëration; it seemed to keep down the full feeling and pains she had experienced fairly well.

On December 14, 1924, I did a complete exenteration of the ethmoids on the left side and also cleaned out the sphenoid. The anterior wall of the sphenoid was soft and easily removed. While the left ethmoid region did not present such a pathological condition, I wanted to do all that could be done to relieve this young lady from her symptoms and check the choroiditis, if possible, so I went right ahead and removed the anterior and posterior ethmoids. I did not enter the sphenoid on the right, as I met firm resistance on the anterior wall. I did not remove the anterior ends of the middle turbinates in either case, but cracked them well to the medial line, after the manner that Pratt recommends. When the middle turbinate is not very badly diseased, I think it is best to leave it. I know full well that you can see better how to operate after removing the anterior end of the middle turbinate, but one must remember that the patient is less apt to get colds and infection if nature's protection is left. I used very slight gauze packing, and her mother said that the patient slept better than for a long time and for the next three or four days was free from pains over the eyes and in the back of the head.

Just at this time she was quarantined on account of her father having smallpox and I didn't get to see her for two weeks, during which time she had some pressure symptoms. As early as January 12, 1925, her vision was O. D.—15/15 and O. S.—15/19, and she was feeling so well in every way about February 15, 1925, that she asked to be allowed to teach physical training in one of the ward schools where her father is the principal. I gave my consent, provided she did very little or no close work. Her father read for her and assisted her in every way he could. During March she had a light case of influenza and had slight pressure symptoms and fullness in the eustachian tube, for which I gave her a few local treatments. This cleared up promptly, and on March 15, 1924, her vision was: O. D.—15/15; O. S.—15/15. However, she has to pick out the letters and fails to get two or three clearly with the left eye. Her aches and pains have vanished and she is today (April 10, 1925), like a new person. Her mother states that the pains and restless nights she has had are a thing of the past, and that she has to be shaken and called more than once to be awakened.

At the present time, the fundus of this young lady's eye is perfectly quiet, but whether it will stay put, depends largely upon whether the sphenoid on the left side stays so that it will be healthy and have proper drainage and aëration. Sluder and Cary both state that there may be relapses due to fibrous bands, and possibly pressure symptoms of acute coryzas.

I cannot close this paper without saying that our fellow worker in this state, Dr. Edward H. Cary, is doing and has done much pioneer work along this line. For a number of years he has been reporting observations on the close relations between eye and paranasal sinus cases. With the large and varied number of cases he has to deal with and the assistants associated with him in various lines of practice, his observations have been much help to me in running down obscure cases. Of course, Sluder has done much original work along this line and the Pratts are interesting men to follow.

ABSTRACT OF DISCUSSION.

Dr. E. F. Gough, Waxahachie: When I received a copy of this paper that I might be better prepared to open this discussion, I had two or three cases on hand that were somewhat confusing to me, so I immediately tried to make out a case of choroiditis and then to look for the cause. I have decided that one of them really is a case of choroiditis, but I have not as yet been able to find the cause and relieve her. You know it is rather easy to find what one is looking for, but when you don't know what to look for and where to look, it is not so easy. I also practice in a small town, and I am sure that I do not give the ophthalmoscope or the laboratory the chance to help me that I should. Having our back to the wall, many times without the aid and counsel of a consultant, we are forced to make up our minds rather definitely sometimes, and stay with our opinion, whether we are right or not. We also learn to make more out of suggestive symptoms, and depend upon them, than the man that has the laboratory as his every command.

This case report is very interesting, and I feel that this paper was written, not so much to give a

long list of all the conditions that superinduce to choroiditis, but to recite this case and show that he "went some" to work out a diagnosis, and I think that the doctor has succeeded beautifully.

It has been my observation for many years that nasal conditions, such as polypi, septum deviations, especially those that are high, spurs, hypertrophied turbinates or anything that will produce an obstruction that would interfere with areation and evaporation, and any suppurative, infectious condition of any of the nasal accessory sinuses will produce many varied lesions of the eyes. It has always been a wonder to me how the ophthalmologist, *per se*, is able to get along, since there are so many conditions of the eye that a proper nasal diagnosis will explain; even throat conditions will produce eye manifestations.

I am going to "jump the main line" just here, and discuss one of my hobbies, and I feel justified in this, since there are eye symptoms in this condition. I am almost ready to make the assertion that a complete and thorough removal of the bony and cartilaginous septum is a "sure cure" for hay fever.

I am sure that this case report and the discussion that follows will do much to help many of the younger specialists—and some of the older ones—to clear up some of their eye cases and to look to the nose and accessory sinuses for the origin of many of their eye conditions and symptoms that have been bothering them.

I wish to compliment Dr. Vaughn on his persistence and skill in working out this case, and to say that if many of us would put in as much time and thought on some of our hard cases as we do on our golf game, it would result in much more benefit to many of our victims.

Dr. E. L. Goar, Houston: I only want to discuss central choroiditis. I have seen two patients develop a large central scotoma. They all get around but have no useful vision for any type of close work. This is a tragedy only a little less terrible than glaucoma. In these cases, we have had them studied thoroughly by an internist as a rule, and very often they have some focus of infection. One case had four or five abscessed teeth which were removed and yet developed the same condition regardless. Whether or not these teeth were the cause of the condition I do not know. In another case, the only finding was infected tonsils; it is too soon to tell what effect their removal will have. When this condition starts, so far as I know, nothing can be done to stop it. I do not know whether the pathogenesis of this condition is due to a toxemia or to a small embolus. Perhaps, a small bacterial embolus lodges in the choroid behind the macular region. The outer coats of the retina are nourished by the choroidal vessels. Through the amoeboid movement of the retinal pigment cells they come forward, and that is the late condition we find. This produces the central scotoma which never disappears. Nothing can be done, so far as I know, unless the cause can be discovered early and removed.

Concerning the effect of sinusitis in this condition or in optic neuritis or affections of the central bundle, when you refer these cases to the rhinologists they generally tell you they can find nothing wrong with the sinuses. Then perhaps the röentgenologist says the sinuses may be affected. We do not know what to advise. In some of the literature some men have advocated the removal of the ethmoids and opening of the sphenoid, but this is not without danger and we are not sure what has been accomplished.

Dr. John O. McReynolds, Dallas: We should congratulate the doctor on his perseverance and his results. A great amount of good has been done by a persistent investigation of the sinuses where there are toxic manifestations in the eye. I feel, however, that it would not be a wrong position for this Section to take, to utter a word of warning against some of the undue enthusiasm in this direction. I am quite sure that many cases have been operated intranasally for the relief of diseases that are entirely simple in their character, and required no such operation. Sluder has emphasized the importance of making a sufficiently careful differentiation before operation is undertaken. Dr. Woodson and I are both thinking of a case in which a patient was operated by perhaps the most skillful operator in a northern city for a condition which was assumed to be chronic sinusitis. No measurements were made with the tonometer and perimeter, when, as a matter of fact, the case was one of chronic glaucoma. There were no beneficial results from the intranasal operation, and the glaucoma simply progressed.

Dr. J. M. Woodson, Temple: I do not believe we give the sphenoid and ethmoids the consideration which their importance demands. I heard Dr. Cushing say there was no class of cases which gave rise to so many deaths in his department as those with diseases of the sphenoid and ethmoids; nor came to their graves through operation as often as through the disease itself. However, the sphenoid and ethmoid may be exenterated without any very great danger to the patient. I would be timid about taking down the anterior wall of the sphenoid without first discovering the osteum, as Dr. Vaughn did. The antero-posterior diameter is so short in some cases that you may go through both walls. You should first definitely locate the osteum of the sphenoid before attempting to enter it. I do not know of any harm that may come from the submucous operation. Having done the submucous resection you may then put in a long speculum and push the tissues aside, and you can then readily locate the sphenoidal osteum and speedily remove the anterior wall of the sphenoid. The ascending process of the superior maxilla forms the anterior border of the ethmoid. You can open that with an ordinary mastoid curette placed against the superior overhang of the middle turbinate, about a quarter of an inch back from the tip. Break into the anterior ethmoid cells back to the vertical plate of the middle turbinate. When you have gone this far back you have removed the anterior ethmoid cells. Do not destroy these cells unless you find disease, and with this kind of investigation you can be assured that you are doing your patient no harm. I make a special plea for the greatest caution possible in dealing with the ethmoid cells where a little uncertainty may get you in trouble. The cribiform plate is an eighth of an inch above the internal canthus on external measurement. In operating on the anterior ethmoid cells, tip the patient's head far backward; and in working on the posterior cells, tip the patient's head far forward.

Dr. J. J. Richardson, Fort Worth: Recently, I had a very difficult case of chorioretinitis and choroiditis without any pain or any suppurative symptoms. The patient was a healthy young lady taking training in one of our best hospitals. She had blurred vision and spots before the eyes, and with the pupil dilated the ophthalmoscope showed many "floaters," and the vitreous was so cloudy as to prevent seeing the optic disc. She had a very badly infected tooth which was extracted, and the condition did not seem to get any better or to be

arrested in any way. While the tonsils were distinctly infected, I have always felt that tonsils were a very remote cause of choroiditis or iritis, especially unless the patient has had repeated attacks of tonsillitis. This girl had a negative Wassermann. All of her teeth were *x*-rayed and were negative.

The radiologist thought that, perhaps, there was an antrum infection, but transillumination showed both antra alike and clear. She was put on potassium iodide, and the tonsils were removed several weeks after the tooth was extracted. Six or eight weeks later, the vitreous began to clear up. A few days ago this patient came in with vision practically normal. With a minus lens she saw one line better than without any lens. The point I want to make is that if I had accepted this diagnosis of sinus infection made by the radiologist, I might have done this case harm, for after the middle turbinate has been removed, the ethmoids exenterated, and the sphenoid and the antrum opened, some doctor will have a patient the rest of that patient's life, especially in these neurotic cases. I stayed out of the nose and sinuses, and the patient is all right.

Dr. P. E. Suehs, Austin: The paper of Dr. Edgar Vaughn just read interests me very much. He brings out several points of vital importance. First, the chronic condition of choroiditis, the gradual loss of sight in the eye, keeping pace with the many subjective symptoms enumerated, which were only arrested or relieved by rest and sleep, shows us that there was an active and progressive lesion somewhere in the body, which by absorption or direct extension of its toxins brought about the impairment of the choroid with loss of vision in the eye.

Second, the search for the cause of the trouble is very interesting. We might say, that the doctor did not leave a stone unturned to find it. Refraction and wearing of glasses proved of no avail, tonsillectomy did not bring about relief, although for a while it seemed probable. Potassium iodide did not bring results. Urinary findings were negative. Here I would like to mention the progress of the modern ophthalmologist and the greater advantage he has over the ophthalmologist of years ago, who would not stoop down to take a look in a patient's nose, and would only treat the case as such, and as we see in a case of this kind, the end results would have been *nil.*

I greatly admire the doctor for his persistence in the search for the cause of this trouble. The recognition of the ethmoidal and sphenoidal trouble was the key towards the solution of the case.

Had it not been for the deviated septum, the cause of this choroiditis would have been located sooner.

Third, with the exenteration of the ethmoidal cells and sphenoidal sinus, the symptoms came to an end or were cleared up, and the patient did not have to sleep them off any more. And keeping pace with the symptoms, the eye improved, the progress of the choroiditis became arrested, and her vision cleared up to almost normal again.

This case proves to us that absorption from a focus in the system is a cause of choroiditis, and gives us a warning that wherever we have a case of choroiditis and all other causes have been ruled out, we must keep on searching for a closed infection somewhere, particularly in the head. If even doubtful, the focus should be laid open in order to establish full drainage.

Dr. Vaughn (closing): I realize this report is open to all kinds of criticism because, technically, it is loosely written. Referring to Dr. Richardson's discussion, the *x*-ray is not always of much help. When you can see the trouble I think you should go in and remove the evident cause. When I feel that I am right I do not hesitate to go ahead. I try to exercise every precaution in doing such delicate operations. If one does not know the anatomy in these regions, he had better not attempt these operations.

I wish to thank each one of you for your constructive and beneficial discussions.

MISCELLANEOUS

PANHANDLE DISTRICT MEDICAL MEETING.

The Panhandle District Medical Society will meet in Clarendon, the second Tuesday and Wednesday, October 13, 14, 1925. An interesting program and attractive entertainment features have been arranged and a large attendance is expected.

H. L. Wilder, President, Clarendon.
J. J. Crume, Secretary, Amarillo.

MALARIA IN THE NEAR EAST.

The importance of malarial study, investigation and campaigns in the Near East can be judged by the fact that, today, malaria is the greatest single destroyer of the human race in that part of the world, measured in terms of damage to health as well as direct mortality. No single cause of premature death, of life-long misery, and of loss of working power has ever equalled malaria. It is the greatest single element creative of ill health in the history of the Near East. Malaria every year destroys a population equal to that of the largest city of the Near East—say, Constantinople or Cairo.

Although the number of deaths directly due to malaria is not as large as this figure would indicate, yet it is so extremely prevalent, so endemic in locality, and so persistent in the individual, that the total bulk of misery caused by it is quite incalculable. It is an accessory in at least half the deaths from disease, which occur anywhere in the neareastern countries, and it increases the death rate of these countries by at least 50 per cent, as compared with non-malarial nations. It has profoundly modified the history of mankind in this part of the world, by hampering the work of civilization.

The economic loss from malaria in the Near East would make a fascinating subject for statistical study. It is the opinion of a leading authority that the annual loss of time among the working classes amounts to at least 75,000,000 working days per year, indicating a net economic loss of at least $75,000,000 annually.—*Report of Commission on Malaria of the International Near East.*

ANNOUNCEMENT OF NEW CHILDREN'S BUREAU REPORTS.

The Children's Bureau of the United States Department of Labor has just issued a report on "Laws Relating to Sex Offenses Against Children." This publication (No. 145) includes abstracts and texts of State age-of-consent laws and of laws relating to abduction, seduction, prostitution, and to other sex offenses, so far as they concern minors. The abstract of the laws was made by Reuben Oppenheimer, and their compilation was the work of Lulu L. Eckman. The text of Federal laws which have some bearing upon the subject, such as laws relating to the white-slave traffic, or to the transportation of aliens for immoral purposes, is also included. Single copies of this report will be issued free upon request.

Another legal report of interest to child-welfare workers, soon to be issued by the Children's Bureau,

is publication No. 148. This is a report on "Adoption Laws in the United States," prepared by Emelyn Foster Peck. A preliminary analysis of the development and character of adoption legislation in the United States is followed by the text of sections from recent adoption laws of certain States. Professor S. P. Breckenridge of the University of Chicago advised with the bureau in connection with the preparation of this report. It will be ready for distribution early in the fall.

TEXAS STATE BOARD MEDICAL EXAMINATIONS.

The following are the examination questions propounded by the Texas State Board of Medical Examiners at the June, 1925, examinations for license to practice medicine in Texas:

Anatomy.

(H. W. Cummings.)

1. With what bones does the radius articulate? (b) With what bones does the ulna articulate?
2. Describe the diaphragm, giving the origin and insertion of its muscles; name the openings and tell what passes through each of them; (b) give its nerve supply.
3. Through what tributaries would blood returning from the abdominal portion of the digestive tract reach the heart in obstruction of the portal vein?
4. Make a diagram of a typical spinal nerve, labeling fully. (b) What spinal nerves are typical?
5. Describe the right lung and its pleura.
6. Name the valves of the heart and give the location of each.
7. Give a gross description of the stomach, naming its openings and giving its nerve and its blood supply.
8. Give the course of the thoracic duct and name the parts it drains, directly and indirectly.
9. Describe the spermatic cord, giving its various essential constituents.
10. Name the principal classifications of joints, and give an example of each.

Histology.

(Guy P. Sherrill.)

1. Make a drawing of a typical cell and label carefully.
2. State the difference between dendrites and axones. (b) What is comprised in the term adipose tissue; illustrate by drawing or otherwise.
3. Draw a cross section (high magnification) of the human scalp.
4. Name the white blood cells, giving the percentage, size and color of each.
5. State all of the differences between arteries and veins, and distinguish between arterioles and venules.
6. Draw and label carefully a cross section of the isthmus of the fallopian tube.
7. How is the connective tissue classified? (b) Name five different kinds of connective tissue.
8. State all of the differences between white and elastic fibrous connective tissue.
9. Give the varieties of cartilage, and state a locality of the occurrence of each variety.
10. Draw a cross section of the ileum and label carefully.

Physiology.

(H. C. Morrow.)

1. Give a physiological explanation of the secretion of saliva, and name the functions of saliva.
2. What effect does section of the vagi nerves have on (a) respiration, (b) the action of the heart, and (c) digestion?
3. What enzymes are contained in pancreatic juice? By what secretions are the actions of the pancreatic enzymes aided?
4. Locate the center of respiration and describe its function.
5. Give an explanation of the action of illuminating gas in causing asphyxia; also give an explanation of the anaesthesia produced by nitrous oxide gas.
6. What are the main functions of the stomach in digestion?
7. What is meant by intestinal toxemia, and what is its cause?
8. What factors tend to produce equality between the systole and the diastole of the heart; (b) and what factors tend to produce inequality between these factors of the heart?
9. What are the bodily changes produced during fever?
10. Why does blood fail to clot in hemophilia?

Pathology.

(J. W. Pittman.)

1. What is a thrombus; where is it most often found, and why?
2. Describe by labeled drawing a squamous cell cancer.
3. Name the types and briefly describe sarcomata.
4. Describe a miliary tubercle.
5. Describe a peptic ulcer, and tell where they are most often found.
6. Describe macroscopically an arterio-sclerotic kidney.
7. Give a simple classification of burns with a brief discussion of each.
8. Give briefly the macroscopic pathology of the ileum and the caecum in typhoid fever.
9. Name and give a brief discussion of each of the manifestations of inflammation.
10. Give briefly the morbid anatomy of lobar pneumonia.

Diagnosis.

(J. M. Watkins.)

1. Describe mitral regurgitant murmur, and locate on the thorax the point where the sound is best heard.
2. Differentiate intestinal invagination from fecal impaction.
3. How would you diagnose a case of pyloric stenosis in infancy?
4. Diagnose infantile spinal paralysis.
5. Give differential diagnostic points in glaucoma, iritis and conjunctivitis.
6. Give differential diagnosis of the eruption of chickenpox, smallpox and syphilis.
7. Give differential diagnosis of an infected gallbladder, appendicitis and kidney stone.
8. What is the significance of (a) albumen, (b) sugar, (c) indican, and (d) casts in the urine?
9. Give the cardinal diagnostic symptoms of syphilis..
10. Give the differential diagnosis between cerebral hemorrhage and uremic coma.

Surgery.

(Will Cantrell.)

1. Why are fractures of the upper femur especially troublesome of adjustment and fixation?
2. Name the condition most frequently requiring surgery to the chest.
3. What type of infection is associated with prostatic obstruction?

4. Distinguish between irreducible hernia and strangulated hernia; contrast the symptoms of the two conditions.
5. Give methods of three varieties of wound healing.
6. What is Buck's extension? Name two conditions requiring its use.
7. Define Potts' fracture—by drawing if you like.
8. Name three conditions requiring decompression operation.
9. Differentiate complete from impacted intercapsular fracture of the hip joint. Give management for each variety.
10. Reduce subcoricoid-subclavicular dislocation of the shoulder by outlining one of the three universally recognized methods.

GYNECOLOGY.

(J. H. McLean.)

1. Give cause and symptoms of vulvo-vaginal abscess (Bartholin's gland).
2. Give differential diagnosis of ovarian cyst with twisted pedicle.
3. Discuss the relationship of the hypophysis cerebri with the female genitalia.
4. Describe and give relations of the pelvic portion of the ureter in the female.
5. Discuss (tell all you know about) fibroids of the uterus complicating pregnancy.
6. A married woman, 36 years of age, with one child 10 years of age, has metrorrhagia for two months, a sudden pain seizes her on the right lower abdomen and she collapses. Mention three diagnoses in the order of probability.
7. Outline your management of an incomplete abortion.
8. Describe the ligaments of the uterus.
9. Enumerate all conditions justifying cesarian section in the order of their importance.
10. Enumerate the indications for doing a posterior colpotomy.

OBSTETRICS.

(J. M. Witt.)

1. Give the signs of pregnancy: (a) doubtful signs, (b) probable signs, and (c) positive signs.
2. How would you manage to prevent a threatened abortion during the first three months of pregnancy?
3. What are the functions of the placenta?
4. What is meant by the hygiene of pregnancy?
5. Describe the three stages of labor.
6. What conditions, if any, would justify the induction of premature labor?
7. How would you manage a case of post partum hemorrhage?
8. What are the dangers of traction on the cord?
9. What is a placenta previa, and how would you manage a case?
10. Describe the methods for the resuscitation of a still-born child?

HYGIENE.

(Cyrus N. Ray.)

1. Give a list of the various ways by which typhoid fever infection spreads.
2. Give the public hygienic or sanitary measures which you would use to rid a district of malaria.
3. Name three important water-borne diseases.
4. What does a high infection of drinking water with bacillus coli signify?
5. What is the cause of bubonic plague, and how is the infection transmitted? (b) What hygienic measures should be adopted to suppress it?
6. What public hygienic measures would you adopt to render a surface water supply safe for domestic use?
7. How is typhus fever infection transmitted?
8. What gaseous disinfectant is best to use as a germicide in room fumigation? (b) What gaseous disinfectant is best to use in room or ship fumigation to kill fleas, lice, flies, mosquitoes and rats?
9. How do house flies carry infection? (b) Mention some diseases supposed to be transmitted in part by house flies.
10. How does man become infected with tapeworm?

CHEMISTRY.

(Guy P. Sherrill.)

1. What is the chemical difference between hydro-carbons and carbohydrates? Give an example of each.
2. Name the halogens and give their formulas. (b) Give the properties of chlorine and state how it occurs in nature.
3. What are proteins, (b) and state where they are found in the body?
4. Describe briefly an anesthetic, and (b) give the names and the properties of at least three.
5. Name two tests for glucose; (b) describe one, and (c) give the reaction, specific gravity and the color of normal urine.
6. What are poisons, and how are they classified?
7. Give at least four antidotes applicable in a case of mineral acid poisoning.
8. Name two tests for albumin in the urine, and describe one of them fully.
9. Name four substances which when added to caustic alkalies would lessen their poisonous effects.
10. What is an alcohol? (b) What is the difference between grain alcohol and wood alcohol? (c) Give the formula of each.

BACTERIOLOGY.

(Cyrus N. Ray.)

1. Name four general classifications of bacteria; (b) describe the appearance of a typical specimen of each division and name a pathogenic example of each.
2. Describe by drawing or otherwise the characteristic group arrangement of cells of four distinct types of cocci.
3. Define (a) aerobe, (b) anaerobe; (c) to which of these classes does the bacillus tetani belong?
4. Define saphrophyte, (b) opsonins, chemotaxis, agglutinins.
5. Name five culture media.
6. Name and give characteristics and morphology of the tetanus microörganism.
7. How would you easily differentiate most pathogenic cocci from the gonococcus, the micrococcus catarrhalis and the meningococcus?
8. Name and give the characteristics and the morphology of the diphtheria microörganism.
9. Name four organisms most commonly found in pleurisy.
10. Differentiate the bacillus of tuberculosis from the smegma bacillus.

JURISPRUDENCE.

(M. E. Daniel.)

1. Discuss conditions necessary for admissibility as evidence in the courts of "Dying Declarations, and (b) give the class of cases in which such evidence is most admissible.
2. From a medico-legal viewpoint discuss the presumption of death and the presumption of survivorship, and (b) give an example of each.
3. Differentiate post-mortem appearance of the blood in death due to carbonic acid gas (CO), and (b) sulphuretted hydrogen gas.

4. Discuss the legal aspects of sterilization of the insane and mentally unfit.

5. Discuss the medico-legal relations of gratuitous service as it applies to liability and relief from liability.

6. Define (a) life's expectancy; (b) what is material concealment and give its medico-legal significance.

7. Describe in detail a proper medical investigation and autopsy in a case of suspected homicide.

8. In what respect do gun-shot wounds differ from other wounds, and (b) how you would distinguish wounds made before and wounds made after death?

9. How may fractures cause death? (b) Differentiate a fracture produced in a living person from a fracture produced after death.

10. What evidence would lead you to suspect death by lightning?

AMERICAN BOARD OF OTOLARYNGOLOGY EXAMINATION.

The next examination given by the American Board of Otolaryngology will be held at the Cook County Hospital, Chicago, on October 19, 1925. Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

ANOTHER CASE OF TETANUS, WITH RECOVERY.

To the Editor:

I recently reported in the JOURNAL nine successive recoveries from tetanus; I wish to report briefly a tenth.

This patient was a girl, aged six years, whose symptoms began 11 days after sticking a splinter in her foot. The mother thought that the splinter had been removed but a part of it was found in her foot when she came to the hospital.

The first symptom noticed by her mother aside from an indisposition to play, was a "peculiar drawing of her mouth." She was taken to a physician who attempted to look at her throat, but he was unsuccessful because she could or would not open her mouth; this was believed to be due to a sore tongue which had evidently been bitten during a convulsion. Her symptoms grew worse, and five days after the onset she was seen by Dr. John Matlock of Frost, Texas, who sent her immediately to the hospital. At the time of admission she had had no specific treatment for tetanus. She had marked trismus and risus and was having frequent convulsions. The response to treatment was rapid and recovery uneventful.

The therapy used was that detailed in the original report.

K. H. BEALL, M. D.,
Fort Worth, Texas.

MEDICAL RESERVE OFFICERS SPEND FIFTEEN DAYS IN SAN ANTONIO.

Texas doctors prominent in their profession are included among the forty-one medical reserve officers who recently completed fifteen days of active duty with the Second Medical Regiment, Regular Army, at Fort Sam Houston.

Beginning with simple problems of camp sanitation, the doctor-officers were carried through a course concluding with the intricate problem of organizing evacuation lines for wounded from trenches to bases in the rear of the lines, all worked out under conditions simulating as nearly as possible those of actual war. Another problem of actual experience was the examination of about 1,100 applicants for entrance to the Citizens' Military Training Camp at Fort Sam Houston. About 300 boys per hour were examined by the medical reservists assisting regular army officers.

The roster of medical reserve officers here for the training period included:

Three Hundred Fifteenth Medical Regiment—Colonel Charles McC. Hendrick, El Paso; Lieutenant Colonel C. B. Holt, Dalhart; Major R. E. B. Bledsoe, Taylor; Major James D. Blevins, Beaumont; Major Harvey O. Brannon, Fort Worth; Major Jasper Grimes, Beaumont; Major John E. Manney, Waco; Major Jack Hearne, Fort Worth; Major W. L. Endsley, San Antonio; Captain J. W. Conley, Quanah; Captain W. F. Duckett, El Paso; Captain H. W. Gough, San Antonio; Captain R. L. Grogan, Fort Worth; Captain John E. White, Legion (organizer of the National Association for Prevention and Cure of Tuberculosis, now on the staff of the United States Veterans' Bureau Hospital near Kerrville); Captain James H. Caton, Eastland; Captain Claude D. Scaff, Clarksville; Lieutenant Buel F. Hearne, Fort Worth; Lieutenant L. E. Dowd, Bryan; Lieutenant R. H. Harrison, Fort Worth.

Three Hundred Forty-Eighth Regiment—Major George P. Acton, Olney; Major H. N. Barnet, Austin; Major James E. Cooke, Mart; Major Lane B. Cooke, Dallas; Major Van Cookerly, Dallas; Major John M. Hooper, Archer City; Major C. E. Wisecup, Rockdale; Major Fred B. Green, Lufkin; Captain J. B. Brandon, Gorman; Captain M. Kelly, Dallas; Captain W. Pearson, Greenville; Captain Julius Stotchik, Fort Worth, Lieutenant E. C. Smotherman, Hillsboro.

Medical Officers, 358th Infantry—Major M. B. Badt, Fort Worth; Major V. V. Clarke, Lubbock; Captain E. J. Burns, Belton; Captain J. H. Walker, Alvarado; Captain S. R. Griffin, La Porte.

Dental Officers—Captain B. T. Owens, Slaton; Lieutenant T. V. O'Reilly, Fort Worth.

Engineer Medical Officers—Major F. G. Sanders, Fort Worth; Captain H. M. King, Gatesville; Lieutenant McConaghie, Okeene, Okla.

THE SPECIALIST.

A doctor who had taken up as his specialty the treatment of skin disease was asked by a friend how he happened to select that particular branch of medicine.

"There were three perfectly good reasons," said the physician. "My patients never get me out of bed at night, they never die, and they never get well."

A. J. PACINI, "M. D."

This gentleman, who is connected with a concern that sells physiotherapy apparatus, is to discuss ("by invitation") "Some Physiotherapeutic Principles." Although the program of the American Association of Medico-Physical Research gives Mr. Pacini the degree of "M. D." and, although he himself claims it, most careful search has failed to disclose that any one of this name was ever graduated by a reputable college in the United States or was licensed to practice medicine in any State in the Union. Repeated requests made to Mr. Pacini during the past two or three years for information regarding his alleged graduation in medicine have failed to bring any information on the point. According to information received, Pacini has claimed to be graduated by the University of New York in 1905 and by the University of Tennessee in 1910 with the degrees of Ph. C. and M. D. We have been unable to verify either claim. According to the officials, A. J. Pacini was never enrolled as a student in the University of Tennessee nor graduated from

that institution. He was engaged as an instructor in the University of Tennessee nor graduated from covered that some of his claims regarding his educational qualifications were false and his services with the University were severed during the middle of the school term. Pacini, in a letter to the American Medical Association regarding his graduation in medicine, claims to have been graduated under an assumed name in 1909 and he declares that he does not wish to divulge his reason for having assumed a name. He was told that the American Medical Association has not the slightest interest in *why* he assumed a name but it *is* interested in knowing *what name* he assumed and *when* and from *what school* he was graduated. —*Jour. A. M. A.*, Sept. 19, 1925.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Pituitary Extract Obstetrical-Merrell.—A slightly acid, aqueous solution containing the water soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle, preserved with 0.5 per cent of chlorbutanol. It is standardized so that 1 cc. has an activity on the isolated uterus of the virgin guinea pig corresponding to not less than 80 per cent nor more than 120 per cent of that produced by 9.005 gm. of standard, defatted, dried powdered posterior lobe of the pituitary gland of cattle. For a discussion of the actions and use of pituitary solution, see Pituitary Gland (New and Nonofficial Remedies, 1925, p. 260). Pituitary extract obstetrical-Merrell is marketed in ampules containing 0.5 cc. and 1 cc. The Wm. S. Merrell Co., Cincinnati.

Pituitary Extract Surgical-Merrell.—A slightly acid, aqueous solution containing the water soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle, preserved with 0.5 per cent of chlorbutanol. It is standardized so that 1 cc. has an activity on the isolated uterus of the virgin guinea pig corresponding to not less than 80 per cent nor more than 120 per cent of that produced by 0.01 gm. of standard, defatted, dried, powdered posterior lobe of the pituitary gland of cattle. For a discussion of the actions and uses of pituitary solution, see Pituitary Gland (New and Nonofficial Remedies, 1925, p. 260.) Pituitary solution surgical-Merrell is marketed in ampules containing 1 cc. The Wm. S. Merrell Co., Cincinnati.

Solarson.—A 1 per cent solution of ammonium heptenchlorarsonate rendered isotonic by the addition of sodium chloride. Solarson contains from 0.255 to 0.275 gm. of arsenic (As) in 100 cc. Experimental evidence indicates that the arsenic of solarson is readily liberated in the system and is well utilized. It is claimed that solarson has an advantage over the cacodylates because its arsenic is better utilized, and over the arsenates in that subcutaneous and intramuscular injections produce less pain and are less liable to produce toxic effects. Solarson is used as a means of obtaining arsenic effects in the treatment of anemia, chlorosis, malaria, neuroses and dermatoses. Solarson is supplied in ampules containing 1.2 cc. Winthrop Chemical Co., Inc., New York.

Smallpox (Variola) Vaccine (Glycerinated).—(New and Nonofficial Remedies, 1925, p. 342).—This is also marketed in packages of one tube. E. R. Squibb & Sons, New York.

Tetanus Antitoxin-Lilly (New and Nonofficial Remedies, 1925, p. 333).—This is also marketed in syringes containing 10,000 units. Eli Lilly & Co., Indianapolis.

Sajodin Tablets, 1 Grain.—Each tablet contains sajodin, 1 grain. For a discussion of the actions, uses and dosage of sajodin, see New and Nonofficial Remedies, 1925, p. 182. Winthrop Chemical Co., New York.

Tetanus Antitoxin (Purified).—(New and Nonofficial Remedies, 1925, p. 333).—This is also marketed in packages of 20,000 units. E. R. Squibb & Sons, New York.

Novarsenobenzol-Billon, 0.15 Gm. Ampules.—Each ampule contains 0.15 gm. of novarsenobenzol-Billon (New and Nonofficial Remedies, 1925, p. 50). Powers-Weightman-Rosengarten Co., Philadelphia.

Novarsenobenzol-Billon, 0.3 Gm. Ampules.—Each ampule contains 0.3 gm. of novarsenobenzol-Billon (New and Nonofficial Remedies, 1925, p. 50). Powers-Weightman-Rosengarten Co., Philadelphia.

Novarsenobenzol-Billon 0.45 Gm. Ampules.—Each ampule contains 0.45 gm. of novarsenobenzol-Billon. (New and Nonofficial Remedies, 1925, p. 50). Powers-Weightman-Rosengarten Co., Philadelphia.

Novarsenobenzol-Billon 0.75 Gm. Ampules.—Each ampule contains 0.75 gm. of novarsenobenzol-Billon (New and Nonofficial Remedies, 1925, p. 50). Powers-Weightman-Rosengarten Co., Philadelphia.

Anti-Anthrax Serum-Lederle (New and Nonofficial Remedies, 1925, p. 336).—This is also marketed in packages of one 20 cc. vial. Lederle Antitoxin Laboratories, New York.

Tuberculin Pirquet Test ("T. O.")-Lederle (New and Nonofficial Remedies, 1925, p. 347).—This is also marketed in packages containing 10 capillary tubes and in packages containing 25 capillary tubes. Lederle Antitoxin Laboratories, New York.

PROPAGANDA FOR REFORM.

McFerrin, The Humorous "Diet Specialist."—Charles B. McFerrin describes himself as a "Food Scientist," "Diet Specialist," "Humorist," has his headquarters in Chicago, although he seems to sojourn largely in the South, giving lectures on "food science" and diet and organizing "courses" among women, each member, it is said, paying $15 for the course. Knowing that physicians are opposed to the exploitation of the sick and the near-sick and possibly fearing that he may expect criticism from the medical profession, Mr. McFerrin anticipates the inevitable, and in places where he conducts his "courses," endeavors to placate by telling what wonderful fellows physicians are. He states to physicians that he always discourages the use of worthless "patent medicines" and advises medical examination by the physician at least twice a year. In addition to lectures that are free and the courses and prescriptions that are charged for, Mr. McFerrin has for sale health bulletins. These are a weird mixture of elementary dietetics, quotations from faddists and advertisements of fads and quackery. A good deal of the advertising in the bulletin is devoted to "Dr." Charles B. McFerrin himself. It contains advertisements of the Porter's Trufoods, Inc., and the Natur-Way Co., which have occupied the same room in the Chicago office building used by McFerrin as his headquarters. In addition to the sale of courses and individual prescriptions and health bulletins, McFerrin also charges $2.00 for each letter of information that he writes, which would be cheap enough if the information were trustworthy. Then he has "A Corrective Dietary List" at a cost of $5.00 and a "Special Diet For The Unborn" at $10.00. "Dr. McFerrin's Kitchen and Dining Room

Chart" printed in two colors comes at $2.50. But the real big thing is the "Atonement Dietary Service, Dr. Charles B. McFerrin, Founder." An elaborate, 2-page questionnaire comes with the McFerrin Health Bulletin. This the prospective patient is asked to fill out and send with a remittance of $5.00.—*Jour. A. M. A.*, Aug. 1, 1925.

The Parathyroid Hormone.—The recently reported studies make it more than likely that suitably prepared parathyroid extracts contain a substance or substances that will afford complete replacement therapy in the case of the totally parathyroidectomized dog. The methods thus far developed indicate that any extract of fresh ox gland that has been made by a process of weak acid hydrolysis and is sufficiently concentrated contains more or less of the active principle. It has been proposed to use as a provisional unit of potency one one-hundredth of the amount of extract that will produce an average increase of 5 mg. in the content of calcium in the blood serum of the normal dog of approximately 20 kg. of body weight over a period of 15 hours. There should be no haste in a possible human application of the parathyroid hormone. Injections of even very small amounts frequently repeated have invariably proved fatal to animals when the injections were continued.—*Jour. A. M. A.*, Aug. 8, 1925.

The Nutroids Fraud.—Nutroids has been marketed as "a safe obesity cure" by one R. Lincoln Graham. It was claimed (1) that Graham was "an eminent physician, a stomach specialist who has obtained exceptional honors in his profession," (2) that he had discovered "the real cause of fat," (3) that "obesity is brought about by an overdevelopment of alcohol in the digestive tract," and (4) that Graham had discovered the method of preventing the overdevelopment of alcohol by the administration of the product he called Nutroids. The scheme was essentially a mail order fraud. More recently the nostrum was also sold through drug stores. In due course the postal authorities got round to Graham and his "Nutroids" and secured an agreement that Nutroids would not be sold through the mails. Graham can no longer swindle the public through the mails; if done at all, it must be done through the agency of such retail druggists as are willing to cater to this form of quackery.—*Jour. A. M. A.*, Aug. 15, 1925.

Anti-Phymin.—This, modestly described as "the healing gas" and "the greatest curative agent known," is at present prepared by the Phymos Chemical Laboratories of Pensacola, Florida. It is said to be "nonpoisonous to the fullest extent"—whatever that may mean. As is common with quacks, the exploiters of Anti-Phymin have a simple explanation for the complex facts of pathology. All disease, according to the Anti-Phymin thesis, is caused by fermentation. Anti-Phymin, it is claimed, stops the fermentation—and there you are. Anti-Phymin is said to be the discovery of one Cock. In 1916, he was conducting the "Cock Camp Colony and Laboratories" at Kingsland, Texas. This was a "consumption cure" affair in which Anti-Phymin was a part of "the system of treatment." Now, Anti-Phymin is recommended for such a broad field as sore throat, pyorrhea, asthma, "disorders of the stomach," poisoning, "disorders of the kidney and liver," diseases peculiar to women, and venereal diseases. It is also claimed to have cured many cases of pulmonary and bone tuberculosis and is recommended for gallstones, pellagra, appendicitis and diabetes. The A. M. A. Chemical Laboratory examined Anti-Phymin and found it to consist of a dilute solution of sulphurous acid and, necessarily, a small amount of sulphuric acid. This shows that Anti-Phymin belongs to the class of "Liquozone," "Radam's Microbe Killer," "Oxytonic," "Septicide," "Zymatoid" and other nostrums containing as their essential ingredient, sulphuric and sulphurous acid.—*Jour. A. M. A.*, Aug. 15, 1925.

Calcium in Tuberculosis.—Calcium salts have been administered in the treatment of tuberculosis for various alleged reasons: to remedy calcium deficiency; to lessen inflammatory exudate; to favor calcification of lesions, and to lessen sweating and diarrhea. But calcium is not considered as an essential remedy by critical students of the subject.—*Jour. A. M. A.*, Aug. 15, 1925.

Tuberculin in Tuberculous Adenitis.—Tuberculin seems to be indicated when the disease is strictly localized, and especially in involvement of the cervical lymph gland. Its administration is carried on in the same way as in the tuberculin treatment for other purposes with doses that produce a slight local reaction but fall short of a general one.—*Jour. A. M. A.*, Aug. 15, 1925.

Hind's Honey and Almond Cream.—According to an analysis reported in 1914, Hind's Honey and Almond Cream is essentially an emulsion containing alcohol, 7.28 per cent; glycerin, 5.79 per cent; partly saponified beeswax, 5.98 per cent; crystallized borax, 1.49 per cent; perfumed with oil of bitter almonds.—*Jour. A. M. A.*, Aug. 15, 1925.

Benzyl-Viburnum Compound Not Acceptable For N. N. R.—The Council on Pharmacy and Chemistry reports that Benzyl-Viburnum Compound (Benzyl-Viburnum Laboratory, Washington, D. C.,) is marketed in the form of capsules. Each capsule is stated to contain 2 grains of benzyl succinate, viburnum opulus and helonin and powdered ginger root. The name "helonin" has been applied to an extractive preparation derived from false unicorn (Helonias dioica) of indefinite composition. Benzyl-Viburnum Compound is proposed for the treatment of dysmenorrhea and "true asthma." Benzyl esters have been found to be without value in asthma. Cramp bark (Viburnum opulus) and false unicorn (Helonias dioica) have long been constitutents of proprietary "female" remedies, but there is no evidence of their efficiency. The trade package contains recommendations for the use of the preparation in painful menstruation and the advertising suggests that the bottle of capsules may be carried in the shopping bag. The Council concludes that Benzyl-Viburnum Compound is an indefinite complex and irrational mixture, which is marketed with unwarranted therapeutic claims and in a way to encourage its indiscriminate and harmful use by the public.—*Jour. A. M. A.*, Aug. 22, 1925.

John D. Ricker, "Magnetic Masseur."—An advertisement in an Ann Arbor newspaper notified "chronic sufferers" that John D. Ricker, "Noted Magnetic Masseur," would be at a local hotel and advised the blind, the deaf and the halt to come and be cured. The health officer of Ann Arbor believes in protecting the fool from his folly and the sick from the quack and, as a result, he with other local officials were on hand to await the arrival of the magnetic masseur. Ricker did not come, but two of his representatives were arrested, found guilty of practicing medicine without license and ordered to get over the state line in the shortest possible time.—*Jour. A. M. A.*, Aug. 22, 1925.

Supsalvs and Mersalv.—Supsalvs are arsphenamin suppositories put out by the Anglo-French Drug Co., and Mersalv is stated by the same firm to be a 10 per cent ointment of metallic mercury. In 1920, the Council on Pharmacy and Chemistry

reported unfavorably on Supsalvs, because there was no acceptable evidence of the efficiency of arsphenamin administered rectally. Since then the inefficiency of the rectal administration of arsphenamin has been demonstrated by controlled clinical trials. The identity of the ingredients that form the base of Mersalv is not declared by the manufacturer. There is no good evidence to show that Mersalv—or any other proprietary mercurial preparation—is therapeutically superior to the official ointment of mercury.—*Jour. A. M. A.*, Aug. 22, 1925.

The New Pharmacopeia. — The United States Pharmacopeial Convention met in Washington in May, 1920, and appointed a committee to revise the Pharmacopeia of the United States. The new Pharmacopeia was placed on sale August 15; it becomes official January 1, 1926. The responsibility for the scope of the new Pharmacopeia was placed on the twenty-one members who held the degree of Doctor of Medicine. Consequently, the new book should more nearly represent rational medicine than some of the preceding revisions in which pharmacists and pharmaceutic manufacturers largely controlled the situation. From the standpoint of the physician, the most noteworthy feature of this revision is the fact that but forty new drugs and preparations were added, while 192 have been deleted. The additions are drugs which give promise of therapeutic worth: thirty-one of them are already described in New and Nonofficial Remedies. The omission of such substances as arnica, calcium hypophosphite, cerium oxalate, coriander, grindelia, hops, lactucarium, three lithium salts, matricaria, prickly ash, musk, parsley, pepper, saw palmetta, stillingia, sumbul and taraxicum is a distinct aid to scientific medicine. The retention of sarsaparilla is to be regretted. An effort has been made to simplify the Latin titles—examples are: the substitution of cinchophenum for acidum phenylcinchoninicum; methenamina for hexamethylenamina; liquor pituitarii for liquor hypophysis. Whereas the present pharmacopeia requires that two drugs and their preparations be standardized biologically, the new book requires that eight must be so standardized. The unit of measurement, the milliliter (abbreviation "Mil"), which is used in the present Pharmacopeia has happily been abandoned again and the familiar cubic centimeter (abbreviated "cc.") restored.—*Jour. A. M. A.*, Aug. 29, 1925.

Long Island Journal Adopts Council Standards.—Slowly but surely the work of the Council of Pharmacy and Chemistry is receiving recognition. The resolution endorsing the council's work signed by every member of the house of delegates at the 1916 session is only the official record of the increasing support and encouragement being given by individual members of the profession. Practically every medical journal of standing refuses today to accept advertisements of pharmaceutic preparations that have not met the council's requirement. This standard has been adopted by all of the official organs of the various state medical associations (with the notable exception of the *Illinois Medical Journal*). The difficulty of financing a strictly professional journal is no doubt in a great measure responsible for the failure of some publications to close their advertising columns to any but council accepted pharmaceutic products. That the best of these journals desire to support the council is shown by a letter from the business manager of the *Long Island Medical Journal* announcing the arrival of the hopefully anticipated time when this publication can afford to solicit advertising only from manufacturers of products that have met the council's requirements. Henceforth, only such pharmaceutical products as are accepted for inclusion in New and Nonofficial Remedies will be advertised in the Long Island publication.—*Jour. A. M. A.*, Aug. 29, 1925.

Another Mail-Order Rejuvenating Concern Declared a Fraud.—For two or three years past, a mail-order concern calling itself the "Melton Laboratories, Manufacturing Chemists," has been defrauding the public from Kansas City, Mo., in the sale of an alleged sex rejuvenator. The "Melton Laboratories" were not laboratories, and the "manufacturing chemists" were neither chemists nor manufacturers. The thing was a crude mail-order swindle operated chiefly by Harold Nelson Stunz. The nostrum put out by the "Melton Laboratories" was called "Korex." Later, Stunz had two additional drugs added to Korex and put it out under the name "Hiobin" and created a paper organization called the "Hiobin Co." Then Stunz brought out a "Kidney Cure" that he called "Renex." This was sold by the Renex Co., another "paper concern." All three of these nostrums came from the same address; but the public had no means of knowing this, as the addresses were camouflaged to cover this fact. On August 13, 1925, the Melton Laboratories (H. M. Stunz, manager), the Hiobin Co., and the Renex Co., had a fraud order issued against them debarring them from the use of the mails.—*Jour. A. M. A.*, Aug. 29, 1925.

NEWS

Microscope Stolen.—Dr. M. V. Creagan, of Fort Worth, recently lost a Bausch and Lomb microscope, No. 118571, which was evidently stolen from his office in the Byers Building, about August 10. Other physicians might take warning. There are those who in this manner secure money for the purchase of food—or dope.

Anti-Vaccination Fight to be Reopened in San Antonio.—S. P. Lemly's two daughters will be sent back to school this year without being vaccinated, as others are required to be in private, parochial or public schools in San Antonio, he declared Friday. The father spent forty days in jail last year before taking his girls out of classes. Finally the old charges were dismissed.—Fort Worth *Star-Telegram.*

Palestine Students Must Show Vaccination.—The School Board of Palestine, Texas, has given notice that all children who attend the public schools must show evidence of having been successfully vaccinated against smallpox before they will be admitted to classes on September 14. Teachers are also required to be vaccinated and must file health certificates before entering upon their duties.—*News-Tribune* (Palestine.)

Tyler Physician Injured by X-Ray Machine.—Dr. H. R. Coats of Tyler sustained painful injuries about the face and head, on August 19, when in some manner a spark from his *x*-ray machine leaped across to his head, knocking him to the floor. He was rendered unconscious by the shock and the fall to the floor, and had to be carried to his home in an ambulance. He is said to be improving satisfactorily and no serious results are expected.—*Tyler Courier-Times.*

Medical Arts Building for Austin.—The erection of a twelve-story medical arts building on the corner of Brazos and Seventh streets, Austin, is contemplated by Doctors Z. T. Scott and F. C. Gregg, according to the *Austin Statesman.* A preliminary survey was made to estimate the number of doctors and dentists who would be interested in such

a building. Tentative plans for the building have been submitted by a local architect. It will face on Brazos street, the frontage being 100 feet, and will have a depth of about 50 feet. A basement garage for the accommodation of doctors will be provided. Emergency hospital arrangements are also included in the plans.

Rock Island Railroad Declares War on Malaria.—The *Chicago Tribune* announces that the Rock Island System has mapped out a rather pretentious program for eliminating malaria along the right-of-way of that railroad through Arkansas, Louisiana, Oklahoma and Texas. This anti-malaria campaign will be directed by H. W. Vanhovenberg, Sanitary Engineer of the Cotton Belt Line, in which road the Rock Island is interested. Measures such as those planned by the Rock Island have brought the malaria toll down from 600 to 42 on the Cotton Belt, according to Vanhovenberg. There will also be a survey made of the system in an effort to eliminate insanitary conditions.

Wichita Falls Medical Arts Building will be erected at Wichita Falls, Texas, at a cost of $175,000, by the Wichita Falls Medical Arts Building Company, the incorporators being Drs. Q. B. Lee, Everett Jones and O. B. Kiel. The directors of the company are: Frank Kell, W. B. Hamilton, L. H. Cullum, R. M. Waggoner, N. B. Johnson, M. S. Staniforth, W. M. Priddy, J. I. Staley, N. B. Chenault, W. P. Ferguson, Lee Wilson, J. A. Kemp, W. M. Moore, R. R. Robertson, E. R. Fain, J. J. Perkins, B. Bailey, and Drs. Everett Jones, Q. B. Lee and O. B. Kiel. The entire amount of the capital stock has been subscribed and $87,500 has been paid in, according to the charter. This same company is erecting the $200,000 hospital at Eighth and Bluff streets, to be occupied by the Wichita Falls Medical and Surgical Clinic. This hospital will be one of the most complete of its kind in the State.

Orthopedic Reconstruction Clinic Being Erected at Dallas.—The latest addition to the $2,000,000 medical center in Oak Lawn near the City Hospital is the Orthopedic Reconstruction Clinic now being erected by a group of local physicians, headed by Dr. W. B. Carroll. The cost of the building alone will be $20,000.

Work on this convalescent hospital has been started on Maple avenue at Wellborn street, and when completed will represent the first institution of its kind in the Southwest.

The building will be of modern Spanish architecture. In addition to the reception and examination section, there will be a portion of the large building given over to treatment, while a two-story building, housing twenty-five beds, will adjoin, facing on Wellborn street. Across from the new building is found the Presbyterian Clinic, while the Hella Temple Hospital for Crippled Children, Hope Cottage, the Dallas Baby Camp and Parkland Hospital are all within one block of the location.—*Dallas News.*

Medical Society of the Missouri Valley will meet at St. Joseph, September 30, October 1 and 2, 1925. Diagnostic Clinics will be held Wednesday, Thursday and Friday at the Hotel Robidoux, and Hospital Clinics will be held on Monday and Tuesday by the St. Joseph Clinical Society. An elaborate exhibit will occupy the lobby and mezzanine balcony of the Hotel Robinoux. An extremely interesting program has been prepared, which will be participated in by many prominent members of the profession. This program was published in the August number of the JOURNAL. A "get together" smoker will be held Wednesday, when the members will be the guests of the Buchanan County Medical Society and the St. Joseph Clinical Society. Dr. E. H. Skinner, of Kansas City, will talk on "The Periodic Medical Meeting." Among the other distinguished guests who will be present, will be Dr. W. D. Haggard, President of the A. M. A., and Dr. Karl Meyer, Superintendent of the Cooke County Hospital. A complete copy of the program may be obtained by addressing the Secretary, Dr. Charles W. Fassett, 115 East 31st Street, Kansas City Missouri.

Inter-State Post-Graduate Assembly of America will meet at St. Paul, Minnesota, October 12-16, inclusive. The general headquarters for all scientific sessions and exhibits will be at the St. Paul Auditorium. Hotel headquarters will be at the St. Paul Hotel. The scientific program is unusually attractive, and the long list of men of national and international reputation, who will participate in this program, is indeed imposing. Practically all of the leading American medical colleges are represented on the program by one or more faculty members. From a study of the program it would seem that practically every branch of medical science is represented, and by recognized authorities in each instance. Besides many American physicians of note, the following guests from abroad will also participate in this splendid program: Sir William Arbuthnot Lane, London, England; Mr. William Blair Bell, F. R. C. S., professor of obstetrics and gynecology, University of Liverpool Medical Department, Liverpool, England; Professor Vittorio Putti, Bologna, Italy; Mr. Philip Franklin, F. R. C. S., London, England; Dr. H. L. McKisack, consulting physician, Royal Victoria Hospital, Belfast, Ireland; Dr. W. H. Parkes, C. M. G., C. B. E., Auckland, New Zealand.

For further information write to the managing director of the Inter-State Post-Graduate Assembly of America, Dr. William B. Peck, Freeport, Ill.

SOCIETY NEWS

Bell County Medical Society met September 2, at Belton. After enjoying a bounteous repast at 7:30 p. m., the scientific program was taken up.

Dr. J. M. Woodson of Temple, read a paper on "The Importance of the Tonometer in Diagnosing Chronic Glaucoma."

Dr. George S. McReynolds of Temple, read a paper on "Further Consideration of the Foreign Body Problem, with Presentation of Specimens." He reported four cases of foreign bodies: a grass-bur in the larynx, a pin in the esophagus, a peanut hull in the bronchus, and a safety pin in the esophagus. All cases made a speedy recovery upon removal of the foreign body.

Dr. V. M. Longmire of Temple, read a paper on "Spinal Puncture."

Coryell County Medical Society met at the county court house in Gatesville, Thursday, August 6.

Among the interesting scientific papers read in this meeting were those by Drs. V. M. Longmire and A. C. Scott of Temple, Joe Dildy of Brownwood, H. F. Connally of Waco and N. D. Buie of Marlin. Besides those taking part in the scientific program, the following visitors were present: Drs. S. S. Munger of Marlin, G. Miller of Moody, E. C. Smith of Malone and Clayton Shirley.

After the scientific program the doctors and their wives were served with a chicken dinner at Raby Park and were also treated to a swim in the Municipal Swimming Pool.

At 8 o'clock the general public was invited to meet with the doctors at the First Baptist Church

where a splendid program was carried out. Dr. A. C. Scott delivered a most interesting address on the "Prevention and Treatment of Cancer." Dr. N. D. Buie of Marlin, councilor of the twelth district, gave an illustrated lecture on "The Protection of the Child." Dr. Joe Dildy of Brownwood, concluded the program with one of his characteristic witty addresses, which was evidently greatly appreciated by the audience. Misses Ruth Chatham and Mayme Graham, and Mesdames Ola Mae Parks and Ermon Chamlee, rendered some very pleasing musical numbers, which received the enthusiastic applause of the audience.

The Gatesville Messenger concluded the write-up of this meeting with the following comment: "We are sure that we voice the sentiment of the entire public when we thank the doctors of Gatesville for having provided us with the above program."

Dallas County Medical Society met July 9, in the auditorium of the Medical Arts Building. The meeting was called to order by the President, Dr. W. D. Jones.

Dr. Geo. L. Carlisle reported the case of a young lady 25 years of age, who had been running a temperature for five years. She had been treated by good doctors all over the country. The patient gave a perfect blood picture with all examinations negative. He has been unable to account for the temperature, which runs from 100 to 100½ every day.

Dr. S. M. Freedman reported a case of strangulated inguinal hernia in a baby five weeks old. The hernia was reduced under operation. He also reported the case of a ruptured ectopic pregnancy, which was the second in about a year's time, the first occurring on the left side, and the second on the right.

Dr. M. S. Seely reported the case of an unusual fracture of the femur in a man, caused by a twisting of the leg during a fight, in which one man took hold of the others leg and gave it a twist.

Dr. J. M. Martin reported the case of a child about one year old, sent in for *x*-ray examination, in which tuberculosis of the lungs was suspected. No evidence of tuberculosis was found in the lungs, but on examination of the throat a small piece of celluloid was found lodged between the tonsil and the pillar on one side.

Dr. Miller reported the case of a woman who had pellagra, in 1919. Seven months ago she developed paralysis of the right arm and leg, and the right side of the face, and also of the speech center. She was confined to a hospital for four or five months. Three months ago she developed mouth and bowel symptoms of pellagra. The skin symptoms were confined to the right side of the body and around the neck. The cause of the paralysis is still unknown.

Dr. Howard L. Cecil read a paper on "Technique of Perineal Prostatectomy" (demonstrated by moving picture films), which was discussed by Drs. Edward White and C. M. Rosser.

Dr. R. H. Milwee read a paper on "Radiation Treatment of Thyrotoxicosis." This paper was discussed by Drs. Mahon, Rosser, Bailey and Martin.

Drs. W. E. Herrin, McKee Caton, and J. Ralph Hamilton were elected to membership.

Dallas County Medical Society met July 23, at 8:00 p. m., at Hill Top House, White Rock, Dr. C. M. Rosser's country home. The meeting was called to order by the President, Dr. W. D. Jones.

Dr. E. H. Cary reported the case of a man 18 years of age, with a congenital bilateral defect of the third, fourth and sixth nerves, resulting in a total paralysis of all extrinsic nerves of the eye, but with control of the muscles of the iris and accommodation.

Dr. Grigsby reported the case of a man 63 years of age who suffered intense pain in the upper abdomen for 10 days and nights. A diagnosis of gallbladder infection was made, and he was brought to Dallas for operation. He died very suddenly while taking an enema. In 1886, this man was stabbed in the left side, his intestines protruding. Post-mortem examination showed an acute hemorrhagic pancreatitis. A hole was left in the diaphragm by the physician who sewed up the wound in the abdomen, and the intestines were found in the left thoracic cavity. Water from the enema, in the thoracic cavity, caused his death.

Dr. T. J. Calhoun read a paper, on "Fungus Infection," which was discussed by Drs. Ben Griffin, C. O. Bailey and L. W. Fetzer.

Dr. M. S. Seely read a paper on "Shall We Advertise." After the reading of this paper, it was moved and seconded that the rules be suspended and the question of publishing the roster according to specialties be discussed in connection with this paper. The publicity committee then presented the following report, which was adopted:

"The only matter for discussion is whether the list of members shall be placed alphabetically or listed under the various specialties. Your committee is unwilling to decide this, but it is our opinion that this list should be published alphabetically, and not classified under specialties."

Mr. Jed Morrow was given the privilege of the floor, and spoke briefly explaining the work that is being done in the Educational Campaign of the State Association.

Dr. M. T. Griffin was elected to membership in the society.

The President appointed Dr. E. H. Cary as Chairman of the Arrangement Committee for the coming A. M. A. meeting.

Dallas County Medical Society met August 13, at the Dallas Baby Camp. In the absence of the president, vice-president and secretary, Dr. C. C. Nash and Dr. George C. Kindley were elected to serve, respectively, as president and secretary pro tem.

Dr. A. J. Schwenkenberg read a paper on "Endocrine Headaches," which dealt with several phases of the subject and was presented in a manner that revealed careful study and thorough knowledge. An interesting part of the paper was the presentation of several cases from the author's practice. The paper was discussed by Dr. Frank Harrison.

Dr. R. B. Giles read a paper on "Clinical Recognition of Coronary Obstruction," in which he stressed the differentiation between angina pectoris and coronary obstruction, pointing out that from the history, symptomatology, blood pictures, etc., the latter can be definitely and easily diagnosed in the majority of cases. The paper was discussed by Drs. C. M. Grigsby and D. W. Carter, Jr.

The society listened with pleasure to a talk by Mr. C. P. Loranz, representing the Southern Medical Association and its official publication. He referred especially to the annual meeting of the Association to be held in this city in November, and bespoke a large and representative attendance.

Following the completion of the program, a brief social session was held, during which refreshments were served by the staff of the Baby Camp. This part of the meeting was greatly enjoyed by the doctors present, and the hope was expressed by more than one that Miss May Smith, the charming hostess, would again invite the society to meet at the Baby Camp.

Potter County Medical Society met July 13, with the following members present: Drs. A. J. Cald-

well, Richard Keys, J. R. Wrather, A. H. Lindsey, L. V. Dawson, H. H. Latson, D. S. Marsalis, R. S. Killough, A. F. Lumpkin, E. T. Dunaway, M. L. Fuller, R. M. Bennett, L. E. Petty, A. E. Winsett, Neal Hall, G. T. Vineyard, and Dr. Robertson of Northwest Texas Hospital.

Drs. J. R. Wrather, E. A. Johnston and A. F. Lumpkin reported cases of suspected typhoid fever, and a general discussion of typhoid fever followed.

Dr. H. H. Latson read a paper on "Thyroid Disorders With Special Reference to Use of Lugol's Solution." His classification of goiter was simple and easily understood, and the indications and contraindications for administration of Lugol's solution were given with each classification. This paper was widely discussed.

Dr. Charles W. Merrell of White Deer, was elected to membership.

The secretary read an address which Dr. C. M. Rosser, President of the State Medical Association, had delivered before the Texas Press Association at Tyler.

Drs. H. H. Latson, L. V. Dawson and G. T. Vineyard were appointed as an Advertising and Editorial Committee to coöperate in the Educational Campaign of the State Medical Association.

Potter County Medical Society met July 17, for the purpose of taking action upon the death of Dr. Bacon Saunders of Fort Worth, a Past President of the State Medical Association. Drs. A. F. Lumpkin, E. A. Johnston and R. S. Killough were appointed as a Floral Committee, and Drs. Richard Keys, D. S. Marsalis and A. E. Winsett as a committee to draft resolutions of sympathy. This committee drew up the following resolutions, which were adopted by the society:

Whereas, the Supreme Physician in his wisdom has seen fit to remove Dr. Bacon Saunders from our midst; and

Whereas, the medical profession of the Nation, the South, and of Texas especially, has suffered a distinct loss and organized medicine has lost an ardent, consistent and loyal supporter; therefore, be it

Resolved, that the Potter County Medical Society extend to the bereaved family and friends our heartfelt sympathy and condolence in this their sad and trying hour of bereavement; and be it further

Resolved, that a copy of these resolutions be sent to the family of the deceased and a copy spread upon the minutes of this society.

RICHARD KEYS,
D. S. MARSALIS,
A. E. WINSETT,
Committee.

Potter County Medical Society met August 10, with the following members present: Drs. A. J. Caldwell, Richard Keys, L. K. Patton, S. P. Vineyard, R. L. Vineyard, G. T. Vineyard, W. F. Dutton, L. V. Dawson, E. H. Morris, R. S. Killough, D. S. Marsalis, M. A. Biggers, A. F. Lumpkin, E. A. Johnston, E. H. Snyder, W. A. Carroll, J. J. Crume, J. R. Wrather, H. L. Wilder, M. L. Fuller, W. Van Swearingen, E. T. Dunaway and W. H. Flamm.

Dr. L. K. Patton of Amarillo, presented a case of athetosis in a child, reciting the history of the case and the physical findings. The case was discussed by several of the physicians present.

Dr. H. L. Wilder of Clarendon, read a paper on "The Glucose Tolerance Test as An Aid in Diagnosis." The paper stressed the importance of the test in differential diagnosis. Dr. D. S. Marsalis opened the discussion and was followed by a number of others.

Dr. E. H. Morris of Canadian, read a paper on "Some Aspects of Local Anesthesia." The paper outlined the present day methods of administering local anesthetics and stressed the point that local anesthesia could often be employed where a general anesthetic was contraindicated.

Dr. E. H. Morris invited the society to meet at Canadian sometime during the chicken and quail season.

The Advertising and Editorial Committee was empowered by vote of the society to publish a roster of the society in the newspaper and also to aid in the campaign of prosecution of irregular practitioners, now being waged by the State Medical Association.

Tarrant County Medical Society met August 4, on the lawn of All Saints Hospital.

Dr. I. C. Chase introduced to the society Dr. L. H. Martin, recently appointed Director of Public Health for the City of Fort Worth. In his introductory remarks, Dr. Chase reviewed the history of public health in Fort Worth, and how its progress had been slow but nevertheless upward. He paid a tribute to the efficiency of the retiring City Physician, Dr. A. W. Montague, and pledged the hearty coöperation of the entire medical profession of the city to the incoming health officer.

Dr. L. H. Martin spoke to the society on the "Organization of the City Health Department," outlining the various departments into which he intended dividing the work. He particularly stressed the Department of Epidemiology, which will be supervised by a graduate physician, giving his full time to the control of all communicable diseases.

Dr. A. W. Montague spoke on "The Value of Reporting Vital Statistics," in which he particularly stressed the reporting of all births and deaths. The failure to record the birth certificate may cause untold trouble and many disappointments to the individual. He also urged the doctors to sign the death certificates personally and not leave them to the undertaker.

Dr. James Watkins, Director of Public Health for Falls County, spoke on "Control of Communicable Diseases."

Drs. C. H. Harris, J. D. Covert and Webb Walker were appointed on a committee to select an Advisory Council to represent the society in conferences with the City Health Officer.

Drs. C. H. Harris, M. E. Gilmore and E. H. Hall discussed the papers presented. Each one commended the new health officer in the outline of his organization, and program, and pledged coöperation with him.

Dr. E. G. Schwarz, chairman of the committee to confer with Dr. Martin in formulating an ordinance for the better control of communicable diseases, reported that a meeting had been held and an ordinance and health code had been drafted.

Dr. R. H. Gough, chairman of the committee to investigate the rabies situation in Fort Worth, reported that they "did not feel that this society could take part in that special work at this time, since the City of Fort Worth already had a survey of conditions here under way."

Following the business meeting, the members enjoyed a pleasant social hour with the board and officers of the All Saints Hospital. Punch and ice cold watermelons were served.

Tarrant County Medical Society met August 18 on the lawn of St. Joseph's Infirmary.

Dr. E. H. Bursey read a paper on "Splenectomy as a Cure for Purpura Hemorrhagica—Report of a Case," which was discussed by Drs. Frank D. Boyd, Jack Daly and R. H. Gough.

Dr. J. F. McVeigh spoke on "Cardiospasm—Report of a Case." Dr. McVeigh demonstrated a very

ingenious method that he had devised to dilate the muscular spasm at the cardiac end of the stomach. The method consisted of first passing a lead shot tied to a string down into the stomach through the spasmotic area. Down the string was passed an ordinary stomach tube, using the string as a guide. A rubber balloon was so attached to the tube that when air was forced down the tube, the balloon would be inflated and consequently the spasmotic area dilated. This report was discussed by Drs. E. H. Bursey, Frank S. Schoonover and X. R. Hyde.

The society adopted the following resolutions on the death of Dr. Bacon Saunders:

Whereas, in the death of Dr. Bacon Saunders, Tarrant County Medical Society has lost a leader in American Medicine and one of the greatest surgeons ever enrolled as a member of this organization; therefore be it

Resolved, that Tarrant County Medical Society hereby expresses its respect and admiration for him as a leader in the pioneer surgery of Texas, and as one of its greatest teachers whose nobility of character and high ethical conduct have made his life an inspiration to the medical profession; and be it further

Resolved, that the profound sympathy of the Tarrant County Medical Society be, by these resolutions, officially extended to his bereaved family.

Resolutions on the death of Dr. C. B. Simmons were adopted as follows:

Whereas, death has claimed our beloved fellow physician, Charles B. Simmons; and

Whereas, his death removes from our midst a sterling Christian gentleman, a wise and efficient practitioner, a quiet, faithful friend, and a liberal and enthusiastic supporter of our organization; and

Whereas, his death is an overwhelming loss to his family and friends; be it

Resolved by the Tarrant County Medical Society that this record of our great loss be spread upon the minutes; and be it further

Resolved, that we express our sympathy to the bereaved family and friends; and be it further

Resolved, that a copy of these resolutions be sent to the family and that a copy be sent to the public press.

CHANGES OF ADDRESS.

Dr. A. L. Lincecum, from Dallas to Hale Center.

Dr. A. D. Wages, from Longview to Palestine.

Dr. Lindsey Smith, from Austin to Rusk.

Dr. O. C. Jackson, from Voca to Brady.

Dr. F. W. Dimmitt, from Galveston to Brooklyn, N. Y.

Dr. I. P. Gunby, from Sherman to Seattle, Washington.

Dr. Paul Gunby, from Sherman to Seattle, Washington.

Dr. Grover C. Woods, from San Angelo to Breckenridge.

Dr. J. G. Whigham, from Donna to Mission.

Dr. W. H. Lyon, from Cameron to Buckholts.

Dr. Chas. W. Castner, from San Antonio to Wichita Falls.

Dr. W. A. Verdier, from Asherton to Weslaco.

Dr. Neal D. Monger, from Snyder to San Benito.

Dr. G. W. Edgerton, from Rio Grande to Hugo, Oklahoma.

Dr. W. S. Parks, from Houston to Breckenridge.

Dr. J. E. Sparks, from Houston to San Antonio.

DEATHS

Dr. Roy E. Hughes was suddenly killed in an airplane accident near his home, two miles south of Gainesville, July 12, 1925.

Dr. Hughes was born in Bellgreen, Alabama, November 11, 1887, and moved with his parents to Texas in 1889. After receiving his preliminary education in the public schools of Gainesville, he attended the Medical Department of Vanderbilt University, graduating with honors. Returning to Gainesville he was associated in practice with his father, Dr. C. T. Hughes, up to the time of his death. He was local physician for the Santa Fe railway, and medical examiner for many insurance companies. He had been a member of Cooke County Medical Society and of the State Medical

DR. ROY E. HUGHES.

Association ever since he began the practice of medicine. He was a 32nd degree Mason, and a member of Hella Temple Shrine in Dallas. It has been said of him that "He was a man of unusual energy and perseverance, having accomplished much in his chosen profession. He was universally popular, both in medical and social circles, and with his clients, having a genial smile and a glad hand for all."

He is survived by his parents, Dr. and Mrs. C. T. Hughes, of Gainesville, and two small daughters, his wife having died about six months prior to his death.

Dr. Terry Bolding died at his home at Hamilton, Texas, August 5, 1925.

Dr. Bolding was born at Hamilton, Texas, September 30, 1875. He graduated from the Kentucky School of Medicine in 1901, and practiced his profession in Hamilton until 1921, when he moved to El Paso on account of ill health, returning to

Hamilton after two years, where he resumed his practice. He took a postgraduate course at the Chicago Ear, Eye, Nose and Throat Hospital, and spent considerable time at the Mayo Clinic on several occasions. He had long been an active member of Hamilton County Medical Society, and of the State Medical Association. He was a member of the St. Mary's Episcopal Church, and a Mason.

Dr. Bolding was married to Miss Lillian Law in 1906. He is survived by his widow and one child, James Maxwell Bolding.

Dr. Alva Clay Jones died at his home at Leonard, Fannin County, June 28, 1925, after an illness of several months.

He was born in Morristown, Tennessee, March 4, 1870, and came to Texas with his parents when a small boy, the family locating near Honey Grove. He attended the public schools at Honey Grove, and received his degree in medicine from the Atlanta College of Physicians and Surgeons in 1902. He practiced medicine for five or six years at Hickory Creek, five miles east of Leonard, and later located in Leonard where he practiced up to the time of his last illness. He had long been a faithful member of Fannin County Medical Society, and of the State Medical Association. He was a member of the Methodist Church, from which church he was buried.

He was married to Miss Mollie Felty of Hickory Creek, while he was practicing medicine at that place. He is survived by his wife and three sisters, Mrs. J. W. Palmer of Knippa, Mrs. J. D. Baldwin of San Antonio, and Mrs. R. D. Margraves of Hugo, Oklahoma.

Dr. Wesley S. Neal died suddenly of angina pectoris, at his home in Mercedes, Texas, on August 8, 1925.

Dr. Neal was born in Georgia, April 24, 1871. He received his preliminary education in the public schools, and at Weatherford College. He took his degree in medicine from the medical department of the University of Texas, in 1899. He had practiced medicine in Texas and Mexico for over twenty-five years. He entered the army as major in the medical corps, in 1917, and was stationed at Camp McArthur for a time, going with his division overseas in October, 1918, and returning in July, 1919. Upon his return from the army, he resumed the practice of medicine in Mercedes, where he remained in practice up to the time of his death.

Dr. Neal was married to Miss Alma Carson of Malakoff, November 20, 1919. He had for a number of years been a member of Hidalgo County Medical Society, and of the State Medical Association of Texas. He was buried at his father's home at Weatherford, the Masonic Lodge of that place officiating.

Dr. Neal is survived by his widow and two little daughters, ages 3 and 5 years, and by the following brothers and sisters: Fred Neal and Mrs. A. S. Mathews, Fort Worth; Mrs. J. M. Winston and Miss Ada Neal, Weatherford; Fleet Neal, Plainview; Rev. John M. Neal, Huntsville, and Rev. Frank M. Neal of Amarillo.

Dr. T. N. Self died at his home in Cleburne, July 27, 1925.

Dr. Self was born in Johnson County in 1868. He received his degree in medicine from Tulane University in 1893. He practiced medicine in Joshua for nine years and then moved to Cleburne where he continued to practice his profession up to several months ago, when he was compelled to retire from active practice on account of ill health. Dr. Self was a member of the Johnson County and Central Texas Medical Societies, and of the State Medical Association of Texas, and had been for many years an active worker in organized medicine. He was greatly beloved by the people of Johnson County, and he will be greatly missed both by his patients and his fellow practioners, who held him in high esteem.

Dr. Self was a member of the Masonic Lodge, the Woodmen of the World, the Knights of Pythias, and the Cleburne Rotary Club. He had been a member of the Central Church of Christ of Cleburne for thirty-one years, sixteen of which he had served as an elder. He had an excellent voice, and was a very efficient song leader.

He was married to Miss Luella Pearce at Burleson, September 25, 1894. To this union were born five children, all of whom are living and were present at their father's death. Funeral services were held at the Central Church of Christ and the interment was in the Cleburne Cemetery, the Masonic Lodge of Cleburne officiating.

Dr. Self is survived by his widow and five children, Mrs. Frank Towles, Mrs. Clyde McClung, T. N. Self, Jr., and Byron Self, all of Cleburne, and Mrs. J. C. Nelson of Mangum, Oklahoma; by one grandson, John Overton Nelson, and by two sisters, Mrs. Mollie Putnam, and Mrs. Corilla Huff of Fort Worth, and two brothers, F. M. Self of Burleson and Wilson Self of Wichita Falls.

Dr. Edward Everett Bryson of Pittsburg, Texas, died at St. Paul's Sanitarium in Dallas, May 31, 1925, after several months illness.

Dr. Bryson was born at Gainsville, North Carolina, January 4, 1859. He was a son of Colonel and Mrs. Sam C. Bryson and moved to Lamar County, Texas, with his parents at the age of five years. He graduated from the Hospital College of Medicine of Central University, Louisville, Kentucky, in 1891, and since then has taken two postgraduate courses in New York City. He began the practice of medicine in Marietta, Texas, in 1885. In 1891, he moved to Pittsburg, Camp County, Texas, where he practiced up to a short time before his death. He was one of the organizers of the Camp County Medical Society and served that organization successively as secretary, vice-president, and president. He was also a member of the Northeast Texas Medical Society, and of the Texas State and the American Medical Associations. He served three terms of two years each as a member of the board of medical examiners for the fifth judicial district of Texas. He was a faithful member of the Methodist Church. It has been said of him by one who knew him intimately, "Dr. Bryson was devoted to his work and profession, and thoroughness marked his every effort. In his forty years of constant practice of medicine, his life was one of service to the world. He was strictly ethical, honorable and fair in all of his practice. He was kind, generous and broad-minded in all of his dealings, and took a firm stand on all issues involving the highest interest of his country."

Dr. Bryson was married to Miss Nettie Baily of Pittsburg, Texas, in 1892. He is survived by his widow and two children, Mrs. Royce Garrett and Everett Bryson of Pittsburg; by two brothers, Dr. Sam Z. Bryson of Louisville, Kentucky, and Bob Bryson of Deport, Texas; and by two sisters, Misses Margaret and Lee Bryson of Paris, Texas.

Caprokol (Hexylresorcinol-S. & D.) 2½ Per Cent Solution in Olive Oil.—A solution of caprokol 2.5 parts in olive oil to make 100 parts. (For a discussion of the actions, uses and dosage of caprokol, see *Jour. A. M. A.*, May 2, 1925, p. 1338). Sharp & Dohme, Baltimore.

BOOK NOTES

The Health-Care of the Baby. A Handbook for Mothers, Nurses and Physicians. By Louis Fischer, M. D. Fifteenth edition, completely revised, rewritten and reset. 12mo., cloth, 267 pages, illustrated. Price, $1.00 net. Funk & Wagnalls Company, New York, 1925.

The fact that this little volume has gone through fifteen editions since its first publication in 1906, attests to its popularity. The principal facts concerning the care of the infant, with instructions regarding the caloric method of feeding, are dealt with in the first fifteen chapters of the book. The remainder of the little volume is given over to the commoner diseases of childhood and their treatment. Since the book is written for mothers and nurses as well as physicians, it could not be expected to be a highly technical treatise on pediatrics. This volume would be a splendid one for the physician to recommend to the mothers under his care.

Diet in Health and Disease. By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the University of Maryland School of Medicine, Baltimore, and John Ruhrah, M. D., Professor of Diseases of Children in the University of Maryland School of Medicine, Baltimore. Sixth Edition, thoroughly revised. 8vo., cloth, 987 pages. Price, $8.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

This volume on diet has become one of the classics in medicine. Encyclopedic in scope, it is nevertheless written in an entertaining style, and its conclusions can be taken as authoritative, accurate and modern. The main divisions of the book will give an idea of its completeness; these are: The Chemistry and Physiology of Digestion; Classes of Food; Beverages and Stimulants; Various Factors in Their Bearing on Diet; Infant Feeding; Diet for Special Conditions; Special Methods of Feeding; Diet in Disease; Special Diets; The Dietetic Management of Surgical Cases; Army and Navy Rations; Dietaries in Public Institutions; Recipes; The Chemical Composition of American Food-Materials; Rapid Reference Diet Lists; Simple Pamphlet of Information for Distribution Among the Poor in Summer; Weights and Measures; Locke's Tables of Food Values; Appendix.

The book is a most valuable reference volume and will be a very decided addition to any medical library.

A Manual of Physical Diagnosis. By Austin Flint, M. D., LL.D., Late Professor of the Principles and Practice of Medicine and of Clinical Medicine in Bellevue Hospital Medical College, Etc. Ninth edition, revised by Henry C. Thacher, M. S., M. D., Attendant Physician, Roosevelt Hospital, New York. 12mo., cloth, 320 pages, illustrated. Price, $3.25. Lea & Febiger, Philadelphia and New York, 1925.

The author well calls attention to the need of greater stress being laid upon "the acquisition of that thoroughness and skill in the employment of simpler methods, which were so essential to the earlier masters of clinical medicine." Austin Flint has contributed no little to the subject of accurate and painstaking observation in bedside diagnosis. The manner in which the practitioner of large experience arrives at his diagnosis may be attributed by some to a sort of clinical intuition or "hunch," but although the various steps leading to the formation of this practitioner's opinion may have taken place so rapidly as to be indistinguishable, they took place nevertheless. Especially valuable are those chapters upon the diagnosis of cardiac and pulmonary conditions. It was Austin Flint who first called attention to the systolic murmur heard in the majority of cases of aortic regurgitation, which murmur bears his name. Accurate observation is a necessary premise to scientific induction and deduction. We congratulate Dr. Thacher on his very thorough revision of Dr. Flint's work on physical diagnosis, and predict for the little volume a successful career.

Practical Anaesthetics. By H. Edmund G. Boyle, O. B. E., M. R. C. S., L. R. C. P., Anesthetist to St. Bartholomew's Hospital, and C. Langston Hewer, M. D., B. S., M. R. C. S., L. R. C. P., Assistant Anesthetist to St. Bartholomew's Hospital. Third edition, thoroughly revised. 12mo., cloth, 187 pages, illustrated. Price, $2.00 net. The Oxford University Press, American Branch, 35 West 32nd Street, New York City, New York.

The present edition of this small volume on anesthesia has been vary largely rewritten. The chapters on "Blood Pressure, Pulse Reaction During Anaesthesia," was written by Dr. E. I. McKesson of Toledo, Ohio, to whom acknowledgment is made in the author's preface. After a brief historical chapter on anesthesia, the various general and local anesthetics are taken up and the principal methods of administering these described. The authors are obviously partial to the closed method of ether anesthesia, using the Clover Inhaler; whereas, in America, the open method of ether anesthesia is almost universally employed, the closed method being confined almost entirely to gas-oxygen anesthesia.

Diathermy and Its Application to Pneumonia. By Harry Eaton Stewart, M. D., Attending Specialist in Physiotherapy, U. S. Marine Hospitals, New York; Consultant in Physiotherapy, U. S. V. B., New Haven, Connecticut. 12mo., cloth, 210 pages, illustrated. Price, $3.00 net. Paul B. Hoeber, Inc., Publishers, 67-69 East 59th Street, New York City.

The subject of physiotherapy is becoming more and more important. At the last meeting of the Association of Medical Colleges of the United States, it seemed to be the consensus of opinion that in the curriculum of medical schools should be included a course on physiotherapy. The author, who has enjoyed an enviable experience in the practice of physiotherapy, gives the reader the benefit of this experience in a very entertaining and instructive manner. The volume is devoted especially to one phase of physiotherapy, diathermy and its application to pneumonia. A number of case reports are recited to demonstrate the value of diathermy in pneumonia.

A Compend of Gynecology. By Wm. Hughes Wells, M. D., Late Assistant Professor of Obstetrics in the Jefferson Medical College. Fifth edition, revised and enlarged by William Benson Harper, M. D., Instructor of Obstetrics in the University of Pennsylvania. 12mo., cloth, 371 pages, 167 illustrations. Price, $2.00 net. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, 1925.

This little volume which has long been famous for the amount of information contained in so small a space, has undergone a very thorough revision in this fifth edition. Many of the older gynecological methods have been replaced by newer methods that have proved superior. All operative treatment has been taken out of the first part of the volume and is described under "Operative Gynecology" in the latter part of the book. The volume will prove valuable to the practitioner as well as to the medical student as a handbook and manual on gynecology.

Texas State Journal of Medicine

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Vol. XXI **October 1925** **No. 6**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Southern Medical Association Again to Meet in Dallas.—This great organization met in Dallas, November 8, 9, 10, 1915. It is about to play a return engagement or, perhaps, speaking in terms of polite society, it is about to pay its party call. When the idea of meeting in Texas was broached there was considerable surprise and no little trepidation. The Texas members of the Association had gained some reputation for getting what they went after. It was felt that Texas was rather removed from the centers of Southern Medical Association activities, and that the attendance for that reason would be abbreviated. At that time there were comparatively few members from Texas. Opposition to coming to Texas was overcome by the promise to bring the Texas membership up to 1,000, and thereby assure a big meeting. How well they carried out their promise may be judged by the fact that the meeting was the largest the Association had held up to that time, the registration being nearly 1,800. Of the Texas members, 205 registered for the meeting. It is not known what inducements were offered in securing the meeting this time, but doubtless the task was easier than before. There was apparently no surprise when the announcement was made that the 1925 meeting would be held in Texas.

Many of our old-timers, and quite a few not so old at that, will remember with a great deal of pleasure the 1915 Dallas meeting of the Southern Medical Association, and we venture the prediction that not many of them will permit casual interruption of their intentions to attend the meeting at this time. The Southern Medical Association brought to Texas the first great group of notable physicians it has been our pleasure to entertain. The experience accomplished two highly beneficial results that perhaps might well be mentioned. First, we were encouraged to know that the big fish were not too averse to swimming in our little pool. Second, we were pleased to realize that there were big fish in Texas, some of them fully competent to swim in the best of company. Indeed, we were pleasantly brought to the realization that many of us are of the same material that the big fish are made of, and that greatness is largely a matter of application and opportunity. Not that we were not appreciative of these matters before; it simply takes experience to bring about comprehension, and we had not had this kind of experience before. It was

THE PURPOSE OF THE SOUTHERN MEDICAL ASSOCIATION.

"The purpose of this Association shall be to develop and foster scientific medicine and medical fraternalism. It shall have no direct connection with or control over any other society or organization, nor shall it at any time be controlled by any other society or organization. All meetings of the Association shall be for the sole purpose of reading and discussing papers pertaining to the science of medicine, to public health, and to medical education."—*Constitution, Southern Medical Association.*

the first time the mountain had ever come to Mohammed. And since that day the Southern Medical Association has grown and expanded and improved until even those who dreamed it and were most concerned in the realization of the dream, stand astonished and marvel at its greatness. It is, then, a distinct honor to have this organization as our guest on this occasion, and certainly ours will be the gain.

Dallas is prepared to handle the meeting in her usual style, which is recognized in Texas as approaching the superlative. The registration, scientific and commercial exhibits and all meetings, will be held in the new seven-story Sunday School building of the First Baptist Church, located conveniently near the hotel center of the city. The advantage of such an arrangement need not be discussed here, we are sure. Those of us who have chased meeting places and the like over strange cities, which is most of us, will appreciate the advantage of having all the activities of a meeting of this sort under one and the same roof. The several scientific sections have prepared most excellent programs; indeed, it would be difficult to imagine programs more satisfactory. There are papers by the big men of the profession, in profusion, and one of the most delightful phases of the meetings of this organization is the uniform and cordial atmosphere of section meetings, and the pleasing character of the discussions of the papers presented. The scientific and commercial exhibits are always good. There are always ample and attractive social activities, and Dallas will not be lacking in this respect, to say the least of it. There will be ample hotel facilities in Dallas for more than will attend the meeting, but the wisdom of securing hotel accommodations in advance should be considered by those who expect to attend the meeting. Dr. M. P. Stone, Medical Arts Building, Dallas, is chairman of the Hotel Committee. A list of the hotels, with rates, will be found on page 773, October number of the *Southern Medical Journal.* Rooms may be had with or without bath, and from $1.50 per day up to almost any price. We are sure that even several bridal suites will be available. Railroad rates of one and one-half fare for the round trip have been granted, on the identification certificate plan. That is to say, the secretary of the Southern Medical Association, Mr. C. P. Loranz, Empire Building, Birmingham, Alabama, will furnish members with certificates, which will authorize the purchase of round trip tickets at the rate stated, for members and their dependents. Mr. Loranz will also furnish certificates to members of the State Medical Association, who will write for them, stating that it is their intention to join the Southern Medical Association upon arrival in Dallas. This certificate plan is the one used by the State Medical Association for the past several years, and should be well understood by our members.

The meeting will open Monday, November 9, with a number of group meetings. The first general session will be held Monday night, at which time the President, Dr. Stewart Roberts of Atlanta, who is well known to the Texas profession, will deliver his address. Section meetings, in half-day sessions, will begin Tuesday morning and extend throughout Thursday afternoon. There will be numerous interesting clinics during the meeting, particularly on Monday, and quite probably for a day or so following adjournment. There will be another general meeting Tuesday evening, which will be followed by the President's Reception and Grand Ball. On Wednesday evening the alumni banquets, reunions and the like, will be held. The last general session is Thursday afternoon, at which time officers will be elected for the ensuing year.

The Southern Medical Association fills an important role in the scheme of organization of the medical profession, which fact is not generally considered, even by those who are members of the Association. The plan of organization devised by the lamented Dr. J. N. McCormack of Kentucky, and at present in force, provides for the component county medical society, as the basic unit of organization, and their grouping into constituent state associations, with state associations in turn united to form the national body. This series of organizations provides a system of government fairly comparable to the political gov-

ernment of our country. Dr. McCormack and his committee, in preparing their plans, felt that there was something more to be desired, and so devised the district society, into which component county societies within states were to be grouped, and the regional association, in which, in a similar manner, constituent state associations might be united, all for scientific, social and fraternal purposes, with no thought for or bother about the details of control of the organization or discipline of members—these matters being left to component county societies, state and national organizations having appellate jurisdiction. The district society plan is operated in our own State with great success. The regional plan is best exemplified, we believe, by the Southern Medical Association. There is much satisfaction in attending a meeting of this sort.

The registration during the meeting will be by card. Members will bring their cards, of course, and those who do not secure membership cards before arrival in Dallas may do so at the place of registration, upon payment of dues, which are $3.00 per year. It will be remembered that the dues cover the subscription price of the *Southern Medical Journal,* one of the best medical publications in the whole country, and well worth the total fee. It is hoped that the registration at this meeting will be surprisingly large, and we anticipate that such will be the case. Remember the dates, November 9, 10, 11, 12, 1925.

The Law Enforcement Campaign Continues, unabated and with ever increasing success. We have discussed this subject at considerable length in the two preceding numbers of the JOURNAL. It seems desirable to continue the discussion. The public does not yet understand our position to the desired extent. The medical profession alone can justify the fight we are making on unlicensed practitioners of medicine. The doctor can go to his friend individually, and he can, jointly with his fellows, approach the public through the press or from the lecture platform. To secure results he must be fairly acquainted with his subject and know the situation. It is our purpose to see that his attention is called to these matters. It takes much talking to do that. It is our purpose to speak as entertainingly as possible. We hope to justify the necessary consumption of good white paper, which is about the best alibi we have. There is another consideration: posterity may desire to know something of our struggles to place scientific medicine properly before the public, and to defend the public against ignorance and quackery. We trust these offerings will be sufficient for that purpose.

The committee in charge of the publicity and law enforcement campaign has endeavored in every way possible to make it clear that there is no fight on schools of practice, no matter how foolish or how silly the systems of practice advocated may be. For the purposes of this campaign no one cares a rap about the methods of practice. The whole endeavor is to see that all who practice medicine comply with the present Medical Practice Act, and that the public shall demand that this be true. That will mean, of course, that those who are practicing medicine legally have at least demonstrated their familiarity with the fundamenal sciences and are in a position to decide what the trouble is and what should be done about it. There is danger that the campaign be construed as a fight on chiropractors, because of the apparent fact that the principal violators of the law are from that group. That is unfortunate but cannot be helped. We should be careful to keep the central thought before us and before the public, that there is a fair, square, and in the main, efficient standard of education, established by the State, which must be attained by all who would engage in the serious enterprise of preventing people from getting sick and curing them when they are sick or injured.

There have been numerous prosecutions during the past several weeks, and where they have been conducted in accordance with the plans of the State Board of Medical Examiners and our enforcement committee, there has been uniform success. Occasionally there is a faulty complaint and failure because of that fact. For instance, the complaint recommended in our last number, that used in the now famous Teem case, charges

that *money* was received for the services rendered. Conviction was avoided in one case by the patient swearing that he paid in watermelons, and in another case that he paid in ice and the like. Of course, those were technicalities and really had nothing to do with the fact of the practice of medicine, but the technicalities of the law must be observed, else its enforcement cannot be always uniform and just. Occasionally, the atmosphere is so biased that successful prosecution is difficult if not impossible, no matter how clear the law may be or how direct and convincing the evidence may be. In one case, so we are informed, the sheriff had openly expressed his sympathy with the accused. He had even offered to bet the prosecuting attorney ten to one that the prosecution would fail of conviction. This same sheriff selected the jury in the case, the regular venire having been exhausted in previous cases, and there was a hung jury. It is not uncommon for the friends of the accused to get on the jury, apparently for the purpose of protecting him. In one case a prospective juror swore that he had no prejudice against or in favor of the system of medicine practiced by the accused. He did not remember whether his wife had ever taken treatment at the hands of the accused, although it was a known fact that she had, and he swore that he could hear perfectly well, whereas he was very hard of hearing. So far, we have had no experience with a judge who would not rule in strict accordance with the law, be it said to the credit of our courts. There have been complaints of this sort in the past, but we are convinced that ignorance of the law is the explanation and not a disposition to avoid its purposes.

Perhaps a brief report of a typical trial may be of interest:

"The defense moved to quash on the grounds that a temporary injunction had been granted by the United States Federal Court at Fort Worth, restraining the Attorney General and his agents from prosecuting such cases. The prosecution insisted that no such injunction had been granted, and that even so the injunction would not apply in this case. Motion to quash was overruled.

"In the selection of the jury the prosecution made inquiries as to whether the prospective jurors knew the defendant, whether they had talked with anybody about the case, whether they had read the advertisements of the accused, whether they had been treated by the accused, whether they would be governed in their findings entirely by the sworn testimony in the case and the law as construed by the court, and whether they had any prejudice against the Medical Practice Act because it required those who would practice medicine to first secure licenses and have them registered in the office of the district clerk.

"The defense asked prospective jurors whether they believed an individual had a right to get well by any means whatsoever. This question was objected to by the prosecution and the objection was sustained. The defense desired to know whether the prospective juror or any of his family was related by blood or marriage to any doctor or druggist (an adroit way of leading the jurors to believe that the practice of medicine meant the use of drugs in treatment), and whether they had read the advertisements in the lay press published by the county medical society, the State Medical Association and the State Board of Medical Examiners.

"The defense demanded that the rule be applied, and summoned all of the doctors present as witnesses, thereby excluding the doctors from the court room. This was a protective measure, but did not do the accused any good.

"The witness testified that the accused laid him upon the table, adjusted his spine for a headache, for which he paid the accused $1.50. The defense wanted to know whether the witness was cured, to which question the prosecution objected and the objection was sustained. The witness testified further that he had been 'adjusted' by the accused two years previously, for appendicitis, which latter diagnosis a regular physician had made. (This physician, it transpired, is dead.). He took thirty adjustments at the hands of the accused. The defense again wanted to know whether he was cured. The prosecution again objected and the objection was again sustained. The defense asked the witness whether the accused had given him any medicine or written any prescriptions, particularly liquor prescriptions, and whether he used the knife or resorted to surgery. The defense also desired to know whether the witness had signed the complaint, to which the prosecution also objected and was upheld by the court. The object of this question was, of course, to show that there was no dissatisfaction with treatment, and that the prosecution was at the instance of outsiders. The defense desired to know whether the adjustment hurt or injured the witness, which was also objected to by the prosecution, and which objection was sustained.

"The District Clerk placed the medical register in evidence. This register—strange to say—showed that the accused had filed an Arkansas license to practice chiropractic. It also failed to show that the accused had secured a license from the Texas State Board of Medical Examiners. It is a sad commentary, in this connection, that district clerks do not know, or at least observe the requirements of the Medical Practice Act better than some of them do. The defense wanted to know whether the witness could find the name of any chiropractor registered in Texas, to which question the prosecution successfully objected. The defense wanted to know if it was not a fact that only regular doctors were registered there. The prosecution objected to such a question, also, and was sustained. Then came the question from the defense as to whether the book were not furnished by the medical board, which question was not allowed because of the objection of the prosecution. The effort was then made by the defense to place the aforesaid Arkansas chiropractic license in evidence by having it read, but it failed because of the sustained objection of the prosecution. All of this maneuver was, of course, to create the impression in the minds of the jurors that the accused had perfected himself in his chosen calling and had done the best he could to comply with our laws governing the practice of medicine by registering a license from another state, and that, as a matter of fact, the whole intention of the law is that only those who practice *medical* medicine, as it were, are to secure licenses and have them registered.

"The accused testified that he did not give medicine and told his patients not to take it, that it was poison. He undertook to testify that he was not a doctor of medicine, to which the prosecution objected and was sustained. He testified that he had not attended a *medical* college, had not studied chemistry,

histology, surgery, bacteriology, pathology, obstetrics, etc., at least not from a *medical* standpoint. He was not allowed to testify as to the subjects upon which examinations are required by the Medical Practice Act, because of the objection of the prosecution. He was being tried for failing to secure a license from the State and having the same registered, before having pursued the practice believed to come within the purview of the Medical Practice Act. He was then asked whether he used in his practice the medical subjects upon which examination was required by the Medical Practice Act, but was not allowed to answer the question because of the objection of the prosecution. The strung bones of a human spine was handed the accused by his counsel, and he was told to explain to the jury what his profession did in their adjustments. This procedure was objected to by the prosecution, on the ground that the spine was not that of the individual whom the defendant was accused of treating; was not present at the time the treatments were given, and could not therefore testify. The prosecution called attention to the fact that the jury was not called upon to pass upon the merits of the theory of practice advocated by the defendant, and that all testimony should bear upon the allegations in the complaint. The prosecution was promptly sustained by the court in this position. Strenuous endeavors were made to attain the same end by circuitous routes, all to no effect, because of the objections of the prosecution, which were invariably sustained by the court. The witness was warned by the court not to make speeches to the jury, which he constantly endeavored to do, but to confine himself to direct answers of the questions propounded.

"The defense endeavored to introduce numerous witnesses for the purpose of testifying as to the benefits derived from the 'adjustments' made by the defendant. This maneuver was prevented by the prompt objection of the prosecution, that these witnesses knew nothing of the circumstances which figured in the complaint and were not, for that reason, competent to testify.

"The court delivered the charge in writing, which charged tracked the law exactly and explained the points likely to be confused by the laymen on the jury.

"In the addresses of counsel, the prosecution argued that the case was brought into court properly, and that the items in the complaint had been amply proven by testimony; that the Medical Practice Act was a good law; and not, as alleged by the defense, a bad law; that it was similar to the law which required lawyers to secure license before they undertook to advise people about their property; that it was in fact the most highly beneficial law on the statute books of the State of Texas; that the law was placed there under the police power of the State by a legislature which had thoroughly considered the subject, and as a protection to the public against quackery and incompetency. The jury was reminded that each member had sworn to decide the case in accordance with the law as set out by the court and the evidence as properly adduced during the hearing. The prosecution insisted that the money admittedly accepted by the defendant was paid him for the 'treatment' he received, and that the issue could not be evaded by designating these treatments as 'adjustments.'

"The defense pointed out that the State of Texas consists of its citizens, and that it is, therefore, the citizens of the State who are prosecuting the just and good man at the bar. It was argued that the Medical Practice Act was not a just law if it prevented people doomed to death by disease from the right to get well in any manner they saw fit (which the law does not do, of course). The situation was compared with the driver of a car who found that his carburetor would not function. He would not call an oil salesman but a man who understood the carburetor, who would adjust that important part of the machine and thereby correct the whole trouble. No more should one find it necessary to call a medical doctor every time something went wrong with the human machine. The fact that witnesses were not allowed to testify as to the benefits of the adjustments was harped upon at length, and the charge made that the medical doctors were behind the prosecution because they could not stand the competition. The alleged statement of Mr. Elihu Root that our country would be better off if we would repeal every one of our more than ten thousand laws and re-enact in their stead the Ten Commandments, entered the argument strongly, in the efforts of the defense to show that the defendant was not in fact a criminal. It was alleged that the defendant was not being tried for an ordinary criminal offense, but for a technical violation of a vicious and unjust law. It was urged that it was not the duty of the jury to enforce the letter of the law, but to render a verdict in the light of justice. The case of an orphan boy who stole a bag of apples to keep from starving, from a miser who was rich, and the action of the jury in freeing the defendant, was urged as a worthy example to the present jury.

"It was said that lawyers, school teachers, nurses, dentists, optometrists, and others who were required to take examination for license, were examined by members of their own profession, respectively, whereas the chiropractor is required to go before a board of medical doctors, having no board of their own, and that the chiropractors could not expect to get justice at the hands of the five regular medical doctors on the board (to which statement the prosecution objected, on the ground that the speaker was infringing upon the prerogative of the court, who alone could tell the jury what the law is. The objection was sustained.). It was held that the chiropractors do not cure or claim to cure, but merely adjust disordered vertebrae and let nature do the curing. The endeavor to make the English language show that 'adjustment' and 'treatment' meant widely different things, was amusing. It was held that setting a broken leg or adjusting a spine was not treatment, but adjustment, whereas putting salve on a sore or soda in hard water, is treatment. If a car sputters, the carburetor is out of order and the disorder is corrected by adjustment, not by treatment. It was urged that the defendant would have no need of knowledge concerning bacteriology, chemistry and the like, when all he did was to use his hands; that the law might as well require a lawyer to know the Chinese or Hebrew language. If chiropractic is a humbug it will die of its own accord, was the closing argument of the defense. *No one objected to that statement.*

"The prosecution closed its case by urging that it was not the duty of the jury to repeal the Medical Practice Act but to enforce it. The jury was informed that not only are there five regular doctors on the examining board, but two osteopaths, two homeopaths, an eclectic and a physiomedic as well; that the regular doctors on the board are in the minority, and that, according to the theory of the defense, the irregular practitioners would have the advantage; which, fortunately, does not happen to be the case, the so-called irregulars on the board being themselves sticklers for adequate scientific knowledge. It was insisted that neither the county medical society nor the State Board of Medical Examiners, desires to prosecute anybody; they merely desire to require that the law be so enforced that those who would do what the courts have said constitutes the practice of medicine, shall first demonstrate to the established agents of the State that they are basically, at least, qualified to do so."

A word more, in general. The injunction suit filed by certain chiropractors in Fort

Worth, so misleadingly referred to in the lay press, has not been decided by the court. It would, perhaps, be indelicate for us to discuss the case just now, and it is probably sufficient to say that the plea of the chiropractors that they should be secure against prosecution in the state courts, was dismissed upon the motion of the Attorney General, on the grounds that they had recourse in the State courts for the settlement of the constitutional question raised in the plea. Subsequently, the court permitted the plaintiffs to file a brief in support of their contention that they were about to be imposed upon in contravention of their rights as citizens of the United States. The court may or may not reverse the decision previously made. If so, there will then be a hearing of the case on its merits. In such event we are confident that the injunction will be denied, in view of the fact that every allegation made has already been decided by the United States Supreme Court, and in favor of the Medical Practice Act. Most of the publicity given this case has evidently been inspired by the chiropractors. We will have more to say about this matter later on.

Physicians should be ready at all times to assist in the prosecution of illegal practitioners of medicine. They should support the prosecuting attorney in securing evidence, and support him in court. Heretofore, the accused in such cases has invariably filled the court room with his following, thereby creating the impression in the minds of the jurors that popular opinion is against prosecution. This impression may usually be offset with ease by the presence in the court room of several reputable physicians. Doctors will not be called upon to make complaints, but they will be appealed to for leads that will produce the evidence necessary to secure conviction. There need be no personal embarrassment in any instance, as those furnishing the data for the prosecution need not be mentioned. This data should include, first, the name of the patient treated by the unlicensed practitioner; second the name and address of the unlicensed practitioner administering the treatment; third, the dates that treatments were given, and fourth, what remuneration was received by the practitioner for the treatment. No incident should be used that dates back as much as two years.

When in doubt, write to the State Secretary, who will see that all inquiries are properly answered, and in due time.

The Roster Plan of Publicity Grows in Popularity as the law enforcement campaign progresses. Last month we published three effective samples of this character of publicity. This month we are publishing a few more. We consider this phase of the procedure extremely important; that is to say, the character of content and appearance of the ads involved have, as is usually the case with display advertising, a direct bearing on results. We regret that we cannot spare the space for a complete catalog of this advertising, not only for our immediate information but for the information of posterity as well.

Medical Practice Act Must Be Enforced

Our State Constitution wisely provides that the Legislature shall enact laws regulating the practicing of medicine. That mandatory provision was observed by the Legislature of 1907 in the passage of the Medical Practice Act. An injunction clause was added by amendment in 1923, which injunction is applicable when offenders are convicted. The basic principles of this law are neither new nor individual. They are involved in all regulations relating to public service and when rightfully invoked are responsive to a high regard for public policy.

Health Protection Necessary

Humanitarian impulses and sound principles of political economy demand protection of the public health by law. This has been true since remunerative legislation and will be increasingly so as the population is crowded into closer contact.

Hygienic and health actions and activities and disease and death are vital matters of public concern, now more so. Therefore, such operations as authorized by this act are necessary as in any way affect them are properly subject to society and to special regulation as may be required for the public good.

Regulations Reasonable and Just

A law to be effective must be reasonable in its requirements, to be right it must be just. If the standard set was not high enough it would not benefit, operations it would be unfair, if too high to be realized it would be prohibitive and industry at wound be productive. Discrimination in favor or against any physician or method of medical practice would lead to intolerable injustice.

The Medical Practice Act in fact, reasonable liberally comprehensive and Essentially so to particular. A Board of Examiners composed of the representatives of the most reputable and highest professional of any so called school or system of medical practice are eligible for such appointment. Under the operations of the Board such school of medicine or system of practice has equal advantage qualified have been constantly represented, and to such a way that no single school or system could have a majority representation over the rest.

The eclectic representatives of the Regular school of Homeopathy, Electrotherapeutic and the Physicians of Osteopathy, and guarantees to the production of such evidence that is probative, lends has a "standing in court." It is true that there are some differences as the treatment of the sick and the general schools of medical relative to the better methods of treating the sick, but these are played in the treatment of disease, but the disagreement is the last than in base Anatomy, Physiology and Pathology, Materia Medica, Obstetrics, Surgery, Diagnosis, Medical Jurisprudence and Public Hygiene are fundamental studies, a knowledge of which is essential to the treatment of disease whether of general or special. These subjects have been established by the experience of the sciences of the treatment of disease, as the teachings of Hippocrates, B. C. and pertaining as they do to facts, not theories, are not subject to change.

Examination on Principles, Not Methods

The examination which the Board submits to each applicant is uniform and all questions pertaining to the practice of medicine are prepared by a committee of the Board composed of any theory is lived in any system or method on the belief that when applicants have demonstrated to the satisfaction of a majority of any medical college of medicine that they have shown to be trained to determine safe and appropriate treatment. This, which is the essential, and presumes it approaches both the ideal and the practical.

Individual Fairness Guaranteed

Evidence of a good moral character, having received an university and high school or college diploma from an institution equaling the class of the latter and will be non-majority in the examination by the Board. Examination papers are numbered or marked in such a way that the identity of an applicant is destroyed, and the papers are graded by the Board. Provided that hypocrisy or mere lip service, cide, just and non-discriminating examination are given and certification which gives the right they must register with the District Clerk of their county or district. They are then legally qualified and authorized to practice medicine in this State by any method which they may elect before such registration as one is permitted under the law to practice any method or system of medicine.

Medicine a Remedy, Not a Drug or Chemical

The term medicine is defined by the Medical Practice Act as a remedy for disease. The term "remedy" is defined in the dictionary of treating disease. A person in theory, but temporarily acting under the influence of this act which he undertakes the responsibility of a remedy for disease, and if he should be used to be sufficient for any disease or mental or physical, and if he does this and charges for his services without being legally licensed with the District Clerk, he violates the law.

Any person who renders the services of physician or surgeon to the sick or injured, or diseased or injury for the purpose of cure and charges for such services, is practicing medicine in the sense of the Medical Practice Act, and is a violator.

Any person who renders the services of physician or surgeon to the sick or injured, or diseased or injury for the purpose of cure and charges for such services, is practicing medicine in the sense of the Medical Practice Act, and is a violator.

Any person who prescribes the medicine of physician or surgeon to the sick or injured, or diseased or injury for the purpose of cure and charges for such services, is practicing medicine in the sense of the Medical Practice Act, and is a violator.

Any person who prescribes the medicine of physician or surgeon to the sick or injured, or diseased or injury for the purpose of cure and charges for such services, is practicing medicine in the sense of the Medical Practice Act, and is a violator.

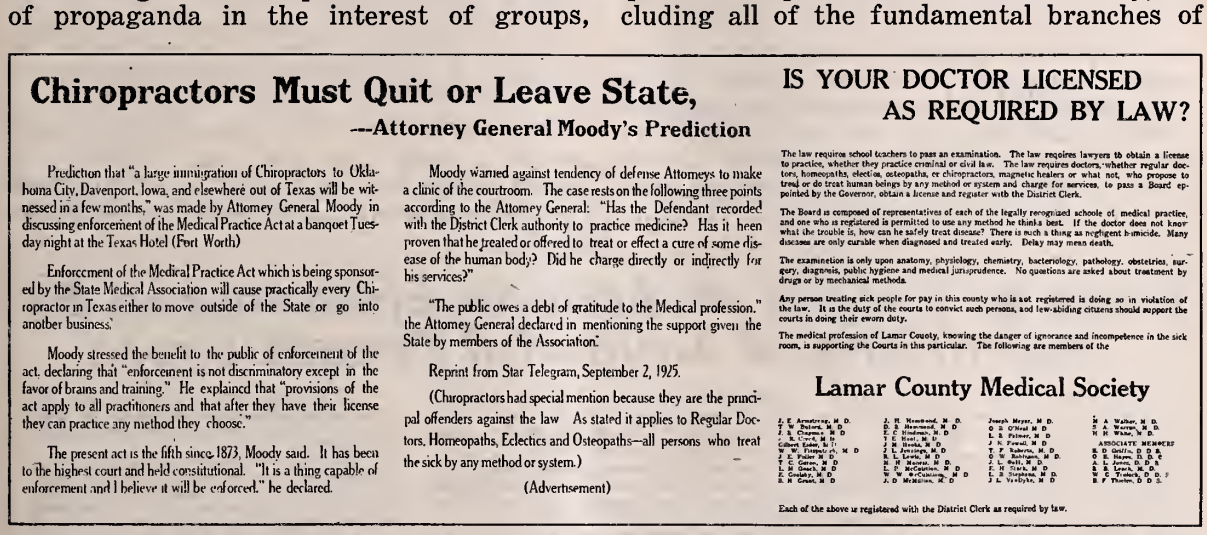
Chiropractic and Other Cults

Quackery is not peculiar to any cult or system. It is a disease of medicine, and is a disease that appears in all systems of medicine, and is such. It is quackery to exaggerate to a person the importance of his situation which does not exist for any purpose. Whether from unconscious or conscious motive, it is detrimental and if attainable an unfortunate. This applies all through from the "healer" doctor down the chain to bad by personal magnetism, to the "healer" doctor who is a physician and who is a physician and signed by and employed by physicians methods as mechanical massage, electric for the purpose of cure, but yet, the order to when he prescribes drugs or other medicine for the same purpose

ter, the head lines and signature will have some effect. It is not expected that the society will depend upon this ad alone. It should be published at the psychological time and followed by some of the other types, such as shown in Figures 2 and 3.

One of the dangers of this system of professional advertising is the likelihood that the advertising itself will partake of the nature of propaganda in the interest of groups, whether of the same or different so-called schools of medicine. This must be guarded against. It would not do for the members of the Dallas County Medical Society, for instance, to insist that they are better qualified to render medical and surgical service than the members of the Tarrant County Medical Society, their neighbors. Such a thing would be unthinkable, even in indefinite terms. It would not do, again, to urge that the homeopathic method of treatment has value over the eclectic system, or the so-called allopathic, or, and more to the point, that osteopathy has superior value to medical treatment. At the same time, there is a sort of no-man's land, in which the several systems of medicine may find an opportunity to indulge in a little propaganda. At least, we of the regular profession cannot afford to oppose the osteopath, for instance, in *his* "roster plan" of publicity, because he insists that the methods of the osteopath are successful. Should the osteopaths, however, undertake to say that his system of practice should be followed to the exclusion of the agencies endorsed and used by the regular profession, we would feel justified in opposing him and objecting to his publicity. Of course, our objections would be beside the point and of no avail, except to the extent that it would separate the allies in this movement.

In Figure 4 will be noted an ad published by an osteopathic physician. It emphasizes the fact that osteopathy is a new system of practice involving the treatment of disease by "adjustment" of the bones; that it is a system of mechanical therapeutics and, by inference, does not involve the use of medicine. The further fact that osteopathic schools require a comprehensive course of study, including all of the fundamental branches of medicine, is emphatically set out. The fact that the osteopaths have agreed to what the chiropractors refuse to agree, notwithstanding that their procedures are more or less similar, in so far as the argument against the present Medical Practice Act is concerned, is also pointed out, and that is the principal value of this particular ad. We cannot join the osteopath, of course, in the advocacy of his system of practice, but we can and should



Chiropractors Must Quit or Leave State,

—Attorney General Moody's Prediction

Prediction that "a large immigration of Chiropractors to Oklahoma City, Davenport, Iowa, and elsewhere out of Texas will be witnessed in a few months," was made by Attorney General Moody in discussing enforcement of the Medical Practice Act at a banquet Tuesday night at the Texas Hotel (Fort Worth)

Enforcement of the Medical Practice Act which is being sponsored by the State Medical Association will cause practically every Chiropractor in Texas either to move outside of the State or go into another business.

Moody stressed the benefit to the public of enforcement of the act, declaring that "enforcement is not discriminatory except in the favor of brains and training." He explained that "provisions of the act apply to all practitioners and that after they have their license they can practice any method they choose."

The present act is the fifth since 1873, Moody said. It has been to the highest court and held constitutional. "It is a thing capable of enforcement and I believe it will be enforced," he declared.

Moody warned against tendency of defense Attorneys to make a clinic of the courtroom. The case rests on the following three points according to the Attorney General: "Has the Defendant recorded with the District Clerk authority to practice medicine? Has it been proven that he treated or offered to treat or effect a cure of some disease of the human body? Did he charge directly or indirectly for his services?"

"The public owes a debt of gratitude to the Medical profession," the Attorney General declared in mentioning the support given the State by members of the Association.

Reprint from Star Telegram, September 2, 1925.

(Chiropractors had special mention because they are the principal offenders against the law As stated it applies to Regular Doctors, Homeopaths, Eclectics and Osteopaths—all persons who treat the sick by any method or system.)

(Advertisement)

IS YOUR DOCTOR LICENSED AS REQUIRED BY LAW?

The law requires school teachers to pass an examination. The law requires lawyers to obtain a license to practice, whether they practice criminal or civil law. The law requires doctors, whether regular doctors, homeopaths, eclectics, osteopaths, or chiropractors, magnetic healers or what not, who propose to treat or do treat human beings by any method or system and charge for services, to pass a Board appointed by the Governor, obtain a license and register with the District Clerk.

The Board is composed of representatives of each of the legally recognized schools of medical practice, and one who is registered is permitted to use any method he thinks best. If the doctor does not know what the trouble is, how can he safely treat disease? There is such a thing as negligent homicide. Many diseases are only curable when diagnosed and treated early. Delay may mean death.

The examination is only upon anatomy, physiology, chemistry, bacteriology, pathology, obstetrics, surgery, diagnosis, public hygiene and medical jurisprudence. No questions are asked about treatment by drugs or by mechanical methods.

Any person treating sick people for pay in this county who is not registered is doing so in violation of the law. It is the duty of the courts to convict such persons, and law-abiding citizens should support the courts in doing their sworn duty.

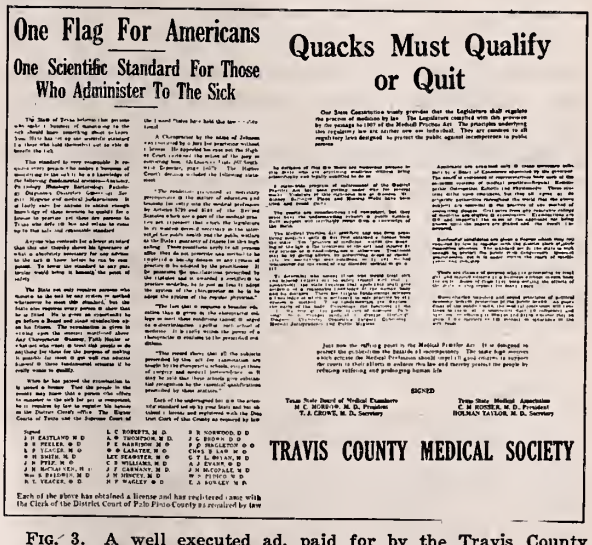
The medical profession of Lamar County, knowing the danger of ignorance and incompetence in the sick room, is supporting the Courts in this particular. The following are members of the

Lamar County Medical Society

J. E. Armstrong, M. D. — J. H. Hazelwood, M. D. — Joseph Meyer, M. D. — N. A. Walker, M. D.
T. W. Bates, M. D. — D. B. Hazelwood, M. D. — O. B. O'Neal, M. D. — A. Warren, M. D.
J. E. Clayton, M. D. — T. C. Hudson, M. D. — L. B. Palmer, M. D. — N. H. White, M. D.
J. H. Cox, M. D. — J. H. Hunter, M. D. — J. N. Powell, M. D.
Gilbert Cates, M. D. — J. H. Hooks, M. D. — ASSOCIATE MEMBERS
W. W. Fitzpatrick, M. D. — J. L. Jennings, M. D. — T. P. Roberts, M. D. — R. D. Griffin, D. D. S.
J. E. Fisher, M. D. — R. L. Lewis, M. D. — G. W. Rathjen, M. D. — O. E. Hayes, D. D. S.
T. C. Garner, M. D. — N. H. Maxwell, M. D. — J. L. Sell, M. D. — A. L. Jones, D. D. S.
J. M. Gooch, M. D. — L. D. McCallum, M. D. — E. H. Stark, M. D. — B. S. Leach, M. D.
F. Goolsby, M. D. — W. W. McCuistion, M. D. — J. B. Stephens, M. D. — W. C. Wintsch, D. D. S.
R. H. Grant, M. D. — J. D. McKinney, M. D. — J. L. Verdyke, M. D. — B. F. Thorne, D. D. S.

Each of the above is registered with the District Clerk as required by law.

FIG. 2. Lamar County Medical Society helped to crystallize public sentiment in their county against violators of Medical Practice Act with this paid advertisement in their local paper.



One Flag For Americans

One Scientific Standard For Those Who Administer To The Sick

Quacks Must Qualify or Quit

Texas State Board of Medical Examiners — M. C. MORROW, M. D., President; V. J. CROWE, M. D., Secretary

Texas State Medical Association — C. H. ROSSER, M. D., President; ROLAND TAYLOR, M. D., Secretary

TRAVIS COUNTY MEDICAL SOCIETY

FIG. 3. A well executed ad, paid for by the Travis County Medical Society.

recognize his right to practice what he pleases so long as he complies with the Medical Practice Act and properly regards the personal rights of those who employ him.

The Reaction to Our Law Enforcement Campaign, is, as had been expected, rather vicious on the part of the friends of those who are being restricted thereby. So far as the great lay public is concerned, the reaction to our endeavors is, on the whole, favorable to our contentions. We have endeavored to determine just what the unbiased citizen thinks of the whole situation, without the said unbiased citizen knowing our purposes. The great majority of those approached do not know anything about the campaign and care less. The next largest group is in favor of anything that the physicians of the community stand for in dead earnest. The opposition really comprises a very small minority of the public, even including the advocates of the peculiar systems of practice that are under attack. An intelligent layman who was not in sympathy with our position, upon our request, set out the several reasons for his position, as follows:

"1. The medical doctors are jealous of the chiropractors.

"2. Chiropractors don't practice medicine—they use no drugs.

"3. Chiropractors ought not to be required to take a medical examination—they use nothing but their hands.

"4. Chiropractors can't get a license in Texas because they don't have a board for their science like they do in many other states.

"5. If the chiropractors went before those medical doctors on the board they would 'fail' them out of jealousy.

"6. Chiropractors don't hurt anybody; they cure lots of people. The medical trust ought to let them alone.

"7. The medical doctors make more mistakes than the chiropractors do.

"8. There are quack medical doctors and they would be more numerous if it weren't for the Medical Practice Act; the chiropractors want a separate board to weed out *their* quacks.

"9. The medical doctors won't tell us anything about our sickness or our family's sickness—they won't give us anything to hang our faith to; the chiropractors tell us their treatment will help us.

"10. A sick man has the right to get well. He ought to have the right to choose whatever kind of doctor he wants, just like he has to choose what brand of shoes he wants.

"11. Chiropractic is a new science; it was discovered after the Medical Practice Act was passed; the law ought to be amended to exempt chiropractors, or give this new science a separate board."

Our explanation of these objections appeared to satisfy our doubting Thomas, notwithstanding the argument is not complete in any instance; it could hardly be so under the circumstances. Our reply may be epitomized as follows:

(1) The regular medical profession does not oppose any of the several classes of practitioners who are licensed under the present Medical Practice Act. It differs with these upon the value of their methods of treatment, but does not urge this difference in any public manner; indeed, all of these so-called schools of medicine have been allies in advocating a satisfactory scientific standard for the practice of medicine in this State.

(2) It is not necessary that a physician use drugs in order to come within the purview of the Medical Practice Act, as has been decided by almost every court in the land, including the Supreme Court of the United States. While that is a technical matter, at the same time and from the practical standpoint, and as a reasonable contention, the purpose of the treatment and its application, is what counts in the practice of medicine. In most instances the use of drugs is less dangerous than the application of many measures of mechanical therapeutics. The law should, therefore, not concern itself with this phase of the problem. The State holds that those who would by any method whatsoever endeavor to relieve the human being of physical or mental disability, should be in a position to determine the cause of the disorder and decide what measures are best to be used in overcoming the condition. That cannot be

Lives of People of Abilene Endangered By Operations of Unlawful Practitioners

There seems to be much confusion in the public mind as to the provisions of our laws regulating the various kinds of doctors.

A great deal of misinformation has been circulated by those desiring to violate such laws. Below is a statement of the facts concerning the Osteopathic School of Practice.

Osteopathy is recognized by the laws of the State of Texas as a complete school of medicine and surgery. Its practitioners take the same state examinations for license to practice, and are accorded all the rights and privileges of the practitioners of the so called regular school of medicine.

Osteopathy is represented on the State Board of Medical Examiners by two members.

Unlike its cheap, would be imitators, it requires a rigid minimum course of four years of nine months each, and its practitioners are lawfully practicing under State License.

Osteopathy has evolved new methods of treating disease by adjustment of the bones, a system of bloodless surgery, requiring four and five years of nine months each, to master. There is no short and easy method of learning how to treat the sick by any system.

No so called adjuster of the bones who has taken all of a six weeks or three months course can approach, even afar off, the work of technically trained osteopathic surgeons who have undergone an intensive training in high class colleges.

The minimum college course required prior to being accepted for examination by the State Board of Medical Examiners, is four years of eight months each.

No school of mechanical therapeutics but the osteopathic even nearly approaches this standard. However, the minimum course required by all Osteopathic Colleges exceeds this requirement by four months. The average course taken by the principle violators of this law is about four months or less.

Abilene and Taylor County are at the present time infested with numerous unlawful practitioners of the above description.

If you wish to be sure that your doctor is qualified and licensed by the State, ascertain whether his license is registered with the District Clerk, as the law requires.

DR. CYRUS N. RAY
Osteopathic Physician
Member Texas State Board of Medical Examiners

FIG. 4. An osteopathic physician's contribution to the Medical Practice Act's enforcement.

done by any practitioner who does not comprehend the human body in health and disease, both as to its structure and behavior, physical and mental.

(3) Chiropractors should take the same examinations other practitioners take, for the reason that they are undertaking to do the same thing and with the same organism. It is not a question of what they use or how they use it, and cannot be, unless it is that they intend to use an ax or some similar instrument, in such a way as to become a weapon.

(4) Chiropractors can get licenses in Texas by taking a satisfactory course of schooling and passing a satisfactory examination before the State Board of Medical Examiners, as do the osteopaths, to use an illustration which should be apt in this instance. There is nothing in the law which would discriminate in the least against the chiropractor, unless it is that the requirement that the practitioners of this school be intelligent and educated, may be considered discriminatory.

(5) The method of procedure in the examinations conducted by the State Board of Medical Examiners precludes the possibility of determining which papers are contributed by chiropractors, should they come up for examination, unless, indeed, their almost universal ignorance of scientific medicine would disclose their professional identity. Even so, the regular doctors on the board are in the minority; and it may be said, incidentally, that the representatives of the minor schools on the board are among the most zealous advocates of a high standard for the practice of medicine in this State.

(6) The chiropractors may not hurt anybody, and they may cure a lot of people, but chances are they frequently do the one and frequently they will not do the other, and in exact proportion to their ignorance. Certainly they would be more successful and less harmful if they were well instructed in the several sciences upon which the practice of medicine is based, even though drugs are not considered. There is no such thing as a "medical trust." The tendency of modern times is to the contrary, so far as the medical profession is concerned. No one is trying to bother the chiropractors. The whole effort is to make all who want to do what the chiropractors are proposing to do, which is to practice medicine (drugs or no drugs), come up to the same lick log.

(7) On a strict percentage basis medical doctors do not make more mistakes than chiropractors; indeed, it is not true on any basis—quite the contrary. However, it will be admitted that there are ignorant doctors in the practice at the present time, and that the most expert and highly informed physicians doubtless do make mistakes. That is all the more reason why ignorance should be carefully guarded against. If the highly trained and well informed physician makes mistakes, how much more likely will it be true that a person without knowledge of the scientific facts upon which the practice of medicine is based, will make mistakes, and how much more serious will these mistakes be!

(8) The law cannot concern itself with quacks in the practice of medicine, because of the difficulty of determining just what constitutes a quack. Chiropractors could no more weed out the quacks in their own ranks, granted that there is room there for any such animal, than we can weed them out of our own ranks. The only thing any of us can do is to establish an educational standard and require everybody who desires to practice medicine to come up to it. The system of separate boards for separate schools was once used in Texas, and quite disastrously. It can't legally exist under the Constitution of the State of Texas.

(9) The family physician distinctly *will* discuss with his patients any problem concerning their health. He will not, if he is an honorable man, promise his patients the impossible or even the improbable, except under peculiar circumstances, such as would readily be recognized as warranting deceit in such serious matters. Indeed, the family physician has from time immemorial been the most helpful adviser his people have had, hardly excepting the minister of the gospel.

(10) We agree entirely with the claim that a sick man has the right to get well, and that he has the right to whatsoever kind of doctor he may desire, and more or less as he would choose the brand of shoes he would wear, provided he is not intentionally putting his head into the lion's mouth. We believe our critic would not expect us to sit quietly by while a child, ignorant of the viciousness of the lion, attempts to place his head in a lion's mouth. We believe our critics would not expect us to stand on the

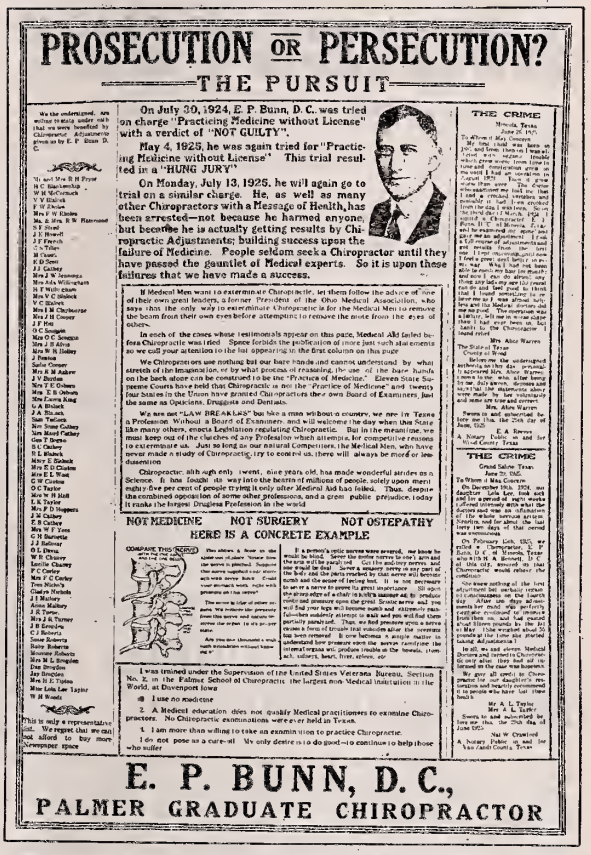
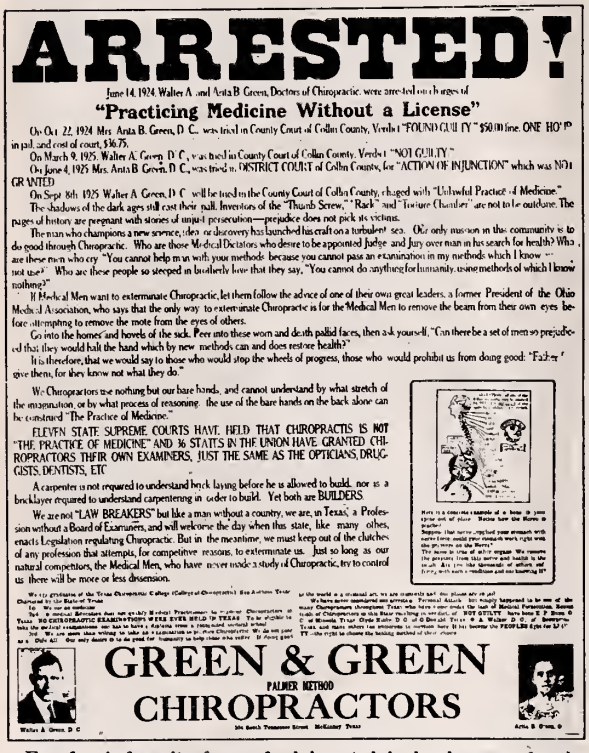


FIG. 5. A good example of the crude but seemingly effective ads of the chiros.

brink of a chasm and not warn the blind traveler that he is treading on dangerous ground.

(11) The law has never concerned itself with any of the tenets of the so-called schools of medicine; hence the fact that new schools have arisen since the Medical Practice Act was passed is beside the point. The Medical Practice Act is based on the fundamental principle that those who practice must have a reasonably fair knowledge of those branches of science used in the practice of medicine, in order that they may be able to diagnose disease and know what measures would be advisable in preventing and curing disease. If chiropractic, or any school heretofore evolved or hereafter to be formed, should desire to qualify its exponents for the legal practice of medicine, they could no more object to the requirements of the Medical Practice Act than could those who are already governed thereby. It is as fair for one as it is for the other and, above all, is for the protection of the public and not the practitioner.

Not the least spectacular reaction to the law enforcement campaign has been the advertising matter put out by those who are coming within the reach of the strong arm of the law. It is quite interesting to study these ads and try to get the viewpoint of the advertiser. The misapplied allegations and misinformation included in some of these ads, is astonishing. It is hardly believable that the intelligent citizen would be influenced by such piffle. However, it is quite likely that this matter is effective, and that it would be much more effective were it not for the advertising



ARRESTED!

June 14, 1924, Walter A. and Anita B. Green, Doctors of Chiropractic, were arrested on charges of

"Practicing Medicine Without a License"

On Oct. 22, 1924 Mrs. Anita B. Green, D. C., was tried in County Court of Collin County, Verdict "FOUND GUILTY" $50.00 fine, ONE HOUR in jail, and cost of court, $36.75.

On March 9, 1925, Walter A. Green, D. C., was tried in County Court of Collin County, Verdict "NOT GUILTY."

On June 4, 1925 Mrs. Anita B. Green, D. C., was tried in DISTRICT COURT of Collin County, for "ACTION OF INJUNCTION" which was NOT GRANTED.

On Sept. 8th 1925 Walter A. Green, D. C. will be tried in the County Court of Collin County, charged with "Unlawful Practice of Medicine."

The shadows of the dark ages still cast their pall. Inventors of the "Thumb Screw," "Rack" and "Torture Chamber" are not to be outdone. The pages of history are pregnant with stories of unjust persecution—prejudice does not pick its victims.

The man who champions a new science, idea or discovery has launched his craft on a turbulent sea. Our only mission in this community is to do good through Chiropractic. Who are those Medical Dictators who desire to be appointed Judge and Jury over man in his search for health? Who are these men who cry "You cannot help man with your methods because you cannot pass an examination in my methods which I know not use?" Who are these people so steeped in brotherly love that they say, "You cannot do anything for humanity, use methods of which I know nothing?"

If Medical Men want to exterminate Chiropractic, let them follow the advice of one of their own great leaders, a former President of the Ohio Medical Association, who says that the only way to exterminate Chiropractic is for the Medical Men to remove the beam from their own eyes before attempting to remove the mote from the eyes of others.

Go into the homes and hovels of the sick. Peer into these worn and death pallid faces, then ask yourself, "Can there be a set of men so prejudiced that they would halt the hand which by new methods can and does restore health?"

It is therefore, that we would say to those who would stop the wheels of progress, those who would prohibit us from doing good: "Father forgive them, for they know not what they do."

We Chiropractors use nothing but our bare hands, and cannot understand by what stretch of the imagination, or by what process of reasoning the use of the bare hands on the back alone can be construed "The Practice of Medicine."

ELEVEN STATE SUPREME COURTS HAVE HELD THAT CHIROPRACTIS IS NOT "THE PRACTICE OF MEDICINE" AND 36 STATES IN THE UNION HAVE GRANTED CHIROPRACTORS THEIR OWN EXAMINERS, JUST THE SAME AS THE OPTICIANS, DRUGGISTS, DENTISTS, ETC.

A carpenter is not required to understand brick laying before he is allowed to build, nor is a bricklayer required to understand carpentering in order to build. Yet both are BUILDERS.

We are not "LAW BREAKERS" but like a man without a country, we are, in Texas, a Profession without a Board of Examiners, and will welcome the day when this state, like many other, enacts Legislation regulating Chiropractic. But in the meantime, we must keep out of the clutches of any profession that attempts, for competitive reasons, to exterminate us. Just so long as our natural competitors, the Medical Men, who have never made a study of Chiropractic, try to control us there will be more or less dissension.

GREEN & GREEN
PALMER METHOD
CHIROPRACTORS

Walter A. Green, D. C. — Anita B. Green, D. C.

FIG. 6. A favorite form of ad inserted in local papers by the chiros, just prior to a trial for violation of Medical Practice Act. Counter-publicity by the Collin County Medical Society defeated the evident purpose of the offender in this instance.

put out by our medical societies in support of the movement. We here reproduce two of these (Figs. 5 and 6), we hope sufficiently large to be legible.

Many and varied have been the editorial comments of the lay press. We regret that we cannot here present and make record of a large proportion of these. We hope there will be space for several, pro and con. We will include herein such of these as we may be able to accommodate in this number of the JOURNAL. Others will follow in later numbers. We deem the following to be of interest in connection with this discussion:

This from the *Austin Sunday Morning News* (October 11, 1925):

"The recent arrest of four Austin chiropractors on the charge of practicing medicine without a license brings to mind that topic vitally important to us all—safeguarding our health.

"Six years ago the writer stood in the office of a prominent San Antonio surgeon and told him that the fight the Bexar County Medical Association was carrying on against the chiropractors was a mistake and that instead of putting them out of the city would make them stronger. The surgeon did not agree, yet the prediction came true to a greater degree than anyone expected. San Antonio is today the chiropractic stronghold of Texas.

"To say that the honorable practice of medicine and surgery is not useful and helpful to the human race would be as ridiculous as it would be untrue. The traditions and accomplishments of the sciences, medicine and surgery, are wonderful. No one can blame the medical fraternity for being proud of its profession and jealously guarding it against imposters and fakers.

"The Palmer Chiropractic, which is the best and most successful practiced, does not and has never claimed to practice medicine, but rather hopes to benefit patients by adjustments of the spinal vertebrae. Further chiropractic, though comparatively young, has been legalized in twenty-six states. There must be something to it or such recognition would not have come so soon. The principal wrong with chiropractic in Texas is that, in spite of its hold throughout the State, legalized recognition has not been gained and thus men are permitted to practice it who are not chiropractors. The better element of chiropractors are quite as anxious generally to correct this as are the medical men. It would have been accomplished long ago, doubtless, if fights within the ranks of chiropractic had not continually developed. Such recognition is almost certain to follow the present fight, thereby giving reputable chiropractors an opportunity to show the benefits of their profession and drive out the quacks.

"In conclusion, the science, business, or whatever the undertaking that best serves humanity will alway be superior in its respective field. The people will be the jury in this case as in all others that have come before. Their decision will determine the merit or demerit of chiropractic."

The following very excellent editorial from the *Marshall Messenger* (September 3, 1925):

"Evidence gathers to the observant that the medical profession of Texas is preparing for the supreme test of enforcement of the Medical Practice Act, which admittedly has not been given a strict interpretation in the past. The meeting in Fort Worth of the State Medical Association resolved itself into a 'war congress' against nonconforming health practitioners, with Attorney General Dan Moody leading the discussion.

"Practically every citizen in Texas will join them, we believe, at least to the point of expressing good will for their intentions.

"The last Texas Medical Practice Act, as amended, did not propose or provide for a narrowing of healing methods. On the contrary, it extended those methods, but provided that any person proposing to practice the healing art should have a broad knowledge of medical practice generally, to the point where the public health might be protected against contagions, epidemics and like menaces.

"This is not too much to expect of a practitioner. We do not believe the doctors of our community, or of any other Texas community, propose to join in the persecution of any other citizen. It is not, in the writer's mind, a matter of cold business, as some would infer—we do not believe the medical group are jealous of the earning power of other health cults. But they are charged by the state, and by

public opinion, with the guardianship of the millions in normal health, as well as the few hundred thousands who are ill, and they are proceeding with the only effective means they have at their disposal to cope with that situation.

"The final outcome is not in doubt, in our minds. The law will be enforced. We do hope, however (and we believe the conformist doctors of Texas will join us) that the campaign will not be used to engender bitter personal feeling or to degenerate into a means for limitation of the liberties of the individual."

The *Dallas Journal* (June 12, 1925), published the following pertinent comments on the proposed law enforcement campaign:

"The plans which members of the Texas State Medical Association are furthering to insure thorough enforcement of the Medical Practice Act are—on the word of the association's president, Dr. C. M. Rosser—for the protection of the public and not for the benefit of any one school of medicine. The intention of the organization, as openly avowed, is to drive from Texas the unfit and unlegalized practitioner. That purpose will be approved by the general public, the *Journal* believes, and even by tolerant-minded citizens who would protest the exclusion of the reliable practitioner of any school.

"The public health is a matter too important to allow the ignorant and the unfit practitioner to hazard it. New methods will be evolved as long as the science of treatment challenges study and sanctions experiment just as new medicines are evolved. But those who subject their bodies to such new methods should have assurance that the men who practice them are informed and competent.

"The right and well-being of more than the individual are involved. The public at large is concerned, and in the case of communicable diseases may be vitally concerned. Protection of the individual against practitional ignorance and quackery means protection of the citizenry of Texas as a whole. There is no tolerance and no favoritism in any movement which is justly designed to eliminate the unfit and inexperienced who operate in the field of medical practice. It is based upon ordinary common sense and should succeed."

The *Austin Statesman* (August 26, 1925), hesitated to accept the paid publicity matter offered by the Travis County Medical Society, because of the direct charges carried that ignorance was rampant in the sickroom, at the same time commenting most intelligently on the subject, as follows:

"That no incompetent person be allowed to practice medicine; that no method of healing attended with doubtful and sometimes dangerous results be tolerated in Texas when such services are charged for, was the purpose of the Medical Practice Act passed some years ago and amended in 1923.

"Through the advance of medical science and allied studies the average life has been extended to a remarkable degree within the past quarter of a century and greater advances are yet to be made.

"In the serious business of promoting the public health the recognized fraternities of pathology are active in promoting higher standards of efficiency. In this movement there is no curtailment of the rights of those who wish to use faith healing on themselves or their friends without remuneration. Other forms of healing are banned if the practitioners are unable to pass examination by the board of examiners. However, the examiners do not concern themselves with the methods any physician may choose to use, leaving it to his judgment to treat a patient as may seem best after he has passed the required test in the various branches of learning conducive to the art of healing.

"The public is at the mercy of pretenders unless the medical fraternity itself intervenes in some organized manner to inform the public. This, they are planning to do. While the strict ethics of the profession do not permit advertising, the American Medical Association has taken a very practical view of the matter and has recommended not only professional cards in the public press but went further, commending to county socities the adoption of a custom of publishing the roster of their membership periodically in newspapers.

"With such information made available to the public there should be a gradual reduction in the number of irregular practitioners and a corresponding safeguarding of the public."

The following from the *Denison Herald* (June 11, 1925):

"The Texas State Medical Association is determined to bar from the practice of medicine in this State all those who do not comply with the State Medical Practice Act. To that end the association will inaugurate a campaign of education as well as strict law enforcement to the end that the public be given the protection the law is designed to afford.

"The war between medical practitioners and practitioners of other cults is of long standing. The Legislature is the battleground where the principal fighting was waged with frequent skirmishes in county courthouses of the State. Laws enacted have not proved satisfactory to the profession or to the layman as witnessed by the frequent amendments adopted.

"While the primary purpose of the law was to protect the public health and safeguard the people from the ignorant and unfit practitioner it was also intended by those sponsoring it to make it so exceedingly warm for the irregulars that they would cease causing trouble in the field of healing. However, the "irregulars" have not submitted tamely. They have fought back with an intensity that conveys the impression there will be no surrender on their part. Hence, the resolve of the medical association to 'carry the war into Africa.'

"Dr. C. M. Rosser, president of the State body, makes it quite plain that the doctors have no desire to drive any legitimate practitioner of a recognized science out of the State. They have no desire to interfere with any person's preference for any particular method of healing, provided the so-called healer is qualified by training about scientific lines and in accordance with recognized principles to administer relief. The doctors believe that the age of miracles has long since passed. They do not believe the sick can be cured by prayer alone or by the 'laying on of hands.' They hold, and rightly so, that ills of the body cannot be cured without the healer knowing something about the human anatomy; and when one assumes to restore health to the sick with no knowledge of the nature of the affliction, depending solely on some occult or divine power or manipulation of the body, under the law it is a fraud on the public that should be prohibited.

"It is a tremendous task the doctors have undertaken, which they no doubt fully realize. They know the strength of the sentiment against them—at least they ought to after witnessing futile attempts in some localities at enforcement of the law. Juries will not convict, apparently, when they are not in sympathy with the law. And that is where

the educational part of the program the doctors have in mind will be of far-reaching benefit."

The *Ballinger Ledger* believes in the policy of "Let the purchaser beware." Evidently, this publication is not concerned with whether or not its unwary readers may be misled, or whether it contributes to the violation of a State law, as witness the following:

"The Texas Medical Association has asked the Texas Press Association to refuse advertising from unlicensed practitioners in the State of Texas. We don't blame the doctors for this move, but looking at the question from a newspaper's standpoint it does not seem right. A newspaper must make its living from the sale of advertising and as long as that advertising is within the law and a newspaper receives money for it, we say carry it and let the readers be their own judges as to where the patronage will go. It's all right with us for a merchant to sell clothes to a man who is not a citizen of the United States, and we sell space by the inch just like they do goods by the yard."

The Art of Conveying Thought receives all too little attention in these trying days of jazz and jingle. Time was when writers gave as much consideration to expression as to thought. Indeed, the critics were wont to refer first to the exquisite language used by the author of an article under discussion, giving secondary thought to the views and ideas of the author. Time was when the orator swayed his audience by the purity of his language and the sheer beauty of construction, in their setting of rich tone and graceful gesture. In these days people were in the habit of following the leader. We do not know exactly what it is, but something has happened to so disturb the affairs of the world that standards are no longer standards, authority is more often than otherwise set at naught, and the leader is without following—unless he gets in front of the crowd. Music has become jazz, art is cubistic and it is the peculiar view, expressed in unintelligible language, that carries weight. Perhaps it is not so bad as all of that but our thought is, that to get an audience and carry conviction a speaker or a writer must resort to various subterfuges, in accordance with the psychology of the situation he is confronting.

In addressing the JOURNAL readers, for instance, we often find that we get better returns on our efforts when we speak somewhat facetiously, and sometimes when our approach is from the blind side. In other words it has been our experience that our most carefully worked out and checked over editorials receive less notice than those which we dash off — — — — just like that, and with frequent references and allusions. Therefore, we have gradually, and perhaps unfortunately, adopted a style which will evoke the criticisms of some of our highly educated readers. For instance, our young friend (he will appreciate that) Dr. E. F. Cooke of Houston, comes across with the following criticism (We only quote three of his paragraphs, not having time to edit the rest of the letter into presentable shape):

"You sure are a trial to me. If it wasn't that I still hold hopes of getting you right, I swear I'd wash my hands of you entirely.

"In the September number of the JOURNAL, which has just reached me, see what you have gone and done. Reference, first editorial, near the bottom of second column: "The proof of the pudding is in chewing the bag." It causes me the deepest concern that such uncultured ignorance should be exhibited to the public. Now, listen, fellow, and I'll enlighten you: and don't doubt but what I am absolutely and infallibly right, as usual! It is customary in making certain puddings, particularly the well known and unwholesome Plum Pudding, upon which the rock of England's greatness rests, that on account of the dough being somewhat elastic, and the pudding having to be boiled, these puddings are tied up in a cloth, in the form of a bag. The neck of the bag is tied with a string, and after the pudding has been duly boiled, it is tied up by this string to season, as you might say.

"The absolutely unwarranted and atrocious misuse you make of this proverb, induces me to tell you that it should be, "The proof of the pudding is in the eating thereof, and not in chewing the (string, rag or bag, which ever you prefer)". Please publish correction in next issue, with proper and ample apologies."

We do not want to take advantage of friend Cooke. Therefore, in order to be entirely fair, we quote our reply (Of course, we could now, having had time to think the matter over, prepare a much better letter):

"It is, indeed, good to know that somebody is reading the editorial section of the JOURNAL. Your favor of September 30 is evidence of this fact. Of course, being English, you would not see my point, which was, if I must explain, that with us there is no proof without chewing the (string, rag or bag). That is about all most of us know about issues, anyway. We do not bother about the main facts, and get our ideas from the context. In other words, we chew the (bag, string or rag), and judge therefrom what was therein before we became concerned. Nevertheless, your discussion is amusing if not intelligible, and perhaps because it is not, and most certainly we can have a little fling in the JOURNAL, we have published your tirade to the entertainment of our occasional readers if not to their enlightenment."

Speaking seriously, we do feel good when our friends let us know that they read what we write, and we recognize in letters such as that of Dr. Cooke the most pleasing sort of flattery. The thought remains, however, and it is that we started out to say, that the meaning of an author is often not as clear as he thinks it is, and more often it is not as the reader thinks it is. That thought should always be borne in mind, both by the author and the reader. Selah.

ORIGINAL ARTICLES

HUMAN AMOEBIASIS WITH SPECIAL REFERENCE TO THE CHRONIC PHASE.*

BY

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Investigations on the subject of human amoebiasis carried on for the past five years during my service in the Sanitary Corps of the United States Army, during and subsequent to the late war, and in the Army Laboratory at the Port of Debarcation, New York City, and since then at Berkeley, California, in conjunction with the California State Board of Health, and in collaboration with Dr. Olive Swezy on the laboratory side and with Dr. L. M. Boyers in the clinical aspects of the subject, have given us a picture of ever increasing definiteness, of chronic human amoebiasis.

This disease came into prominence in medicine largely through its dysenteric aspects and in connection with its incidence in tropical countries, such as the American tropics, and in Java, the Malay States, India, the Near East, and Egypt. Attention was again directed toward it during the late war, by the incidence of the acute disease both in tropical and European areas, and the detection of many chronic carriers, both among troops invalided home and among recruits. Historically, amoebiasis in man has come to be stamped with the characteristics of tropical incidence and dysenteric symptoms.

These characteristics, however, present but a partial picture of this parasitic infection. In temperate regions and in the practice of most physicians in the United States, this disease is only incidentally met with in its dysenteric aspect, or traced to a tropical origin. It is far more frequently present in the chronic phase in patients who may never have had tropical exposure, and who may have no recollection of an attack of dysentery. In fact, in many instances stasis or chronic constipation and only rarely a more or less diarrheic condition of the stool, characterize this infection.

It is our laboratory practice to have our stools collected in two-ounce paraffined drug cans, or when warm stools are desired, in thermos bottles. We examine them in the fresh state in normal salt, and in iodin-eosin stain under the oil immersion. We also examine the stained smears. Smears are spread thin on thoroughly cleaned slides, fixed in Schaudinn's fluid at 60° C., and stained in iron haematoxylin either by the rapid method with warm fluids, or by the slow method with cold fluids. Destaining must be done with great care under the high dry objective and carried to a point where the nuclei of the cysts are clearly demonstrable.

It is our custom to etch the accessions number of the stool on the slide with a diamond pencil, thus avoiding the loss of labels. Examination of the slide is best made with a high grade binocular instrument under the oil immersion. Two objectives may be used. The 1/7 A oil immersion gives a large field and is valuable for the quick detection of cysts; their analysis is best made under a higher magnification by either the 2 mm. fluorite, oil immersion objective with No. 5 and No. 10 eye pieces, or a 3 mm. apochromatic oil immersion with No. 10 and No. 20 eye pieces, which give high magnification and clear definition. A hood of blackened card board attached to and surrounding the binocular instrument, is a great assistance to the observer in prolonged work in examining these slides under high magnifications by artificial light.

It is essential in the diagnosis of encysted stages of intestinal amoebae to rely upon the structure of the nucleus. To understand all types of nuclear structure and all the successive changes through which the nucleus goes during the process of nuclear division is essential for the accurate diagnosis of amoebiasis. The pitfalls are many and the observer must discipline himself not to accept as a positive finding of *Endamoeba dysenteriae* any cyst which presents questionable characteristics. It is better to continue examination of the case than to accept a diagnosis in any degree doubtful.

Owing to the very considerable variation in the numbers of cysts detected in the stools of an infected person from day to day, it is not possible to establish even a probable negative by a single examination. A series of six *consecutive* stools should be examined. If no cysts are found at the end of this series, there is only a probability of a negative. The series should be repeated if there are clinical indications of the infection. Bile salts administered during the period of examination tend to increase the frequency of the cysts in the stool, or to bring them to light at an early stage in the process of examination of the consecutive stools.

In the examination of sputum for amoebic abscess of the lung, the examiner seems to be restricted to the finding of motile stages only. It is essential to distinguish these from the motile stage of *Endamoeba gingivalis* which is found in abundance in the

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 7, 1925.

mouths of many adults, especially those suffering from pyorrhoea alveolaris. These are often found in the sputum and should not be taken for *Endamoeba dysenteriae*.[1]

Amoebae may also be detected in the motile and encysted stages in duodenal drainage in the examination of duodenal contents. The material is run directly into bottles of fixing fluid, either Schaudinn's or Bouin's fluid, and the sediment concentrated by centrifuging and carried through the staining process by the centrifuge method. The detritus is mounted in balsam and examined by the usual method for motile and encysted amoebae.

Stools for laboratory examination need not be warm or fresh for the detection of cysts. Liquid stools, especially dysenteric ones, and stools with undigested food undergo putrefactive changes so rapidly as to require prompt examination. Stools of normal type will retain the cysts in normal condition for several weeks and even months, although the number of such cysts seems to decrease rather rapidly in the stool.

In many treatises on clinical diagnosis, the attention of the clinical microscopist is directed towards the detection of the motile phases of amoeba with clear pseudopodia, containing red blood corpuscles in dysenteric stools. This method of diagnosis is wholly inadequate for the detection of the chronic phase, and is liable to lead to false diagnoses, because of multiple infections. Seven or more species of amoebae live in the human bowel, of which five, at least, may present clear pseudopodia, and at least two of which, *Endamoeba dysenteriae* and *Councilmania lafleuri*, may be found with red blood cells in their cytoplasm.

For the detection of chronic human amoebiasis in the laboratory we have come to rely wholly upon the identification of the infection by means of the encysted stage alone. In the detection of *Endamoeba dysenteriae* we rely upon the structure of the nucleus, especially in the four nucleated stage after all the nuclear divisions have been completed and the characteristic appearance of the nucleus established.

The nuclei in this stage are four in number and are characterized by a single rounded karyosome, generally at or near the center of the nucleus, with peripheral chromatin on the nuclear membrane, a slightly granular intermediate zone, a clear halo around the karyosome and spoke radii passing from the karyosome to the nuclear membrane. The cysts are generally spherical and rounded. They are generally from 6 to 14 microns in diameter, rarely from 16 to 20, and in old chronic cases, sometimes less than 6. In a few instances only, have we found them as small as 3 microns in diameter.

The glycogen vacuoles of the cysts of these amoeba appear at their maximum in one and two nucleated stages of the cysts. They are often more diffuse, more frequently broken up into several vacuoles of varying size than in other amoebic cysts in the stool. The glycogen is more frequently of the diffuse type than it is of the massive, although occasionally seen in this latter form. It is best recognized in cysts treated with the iodine-eosin stain. In the process of fixation and staining the glycogen is dissolved and so the empty vacuoles only are found in the cysts in stained slides.

The chromatoidal structures of the nucleus of *dysenteriae* are of diagnostic value. They are characteristically stout, rod-shaped, with rounded ends, and are never semi-crystalline in form. They appear in greatest number and to best advantage in the early stage of encystment and are often entirely lacking in the four nucleated stage and in most old cysts.

The detection of motile stages of *Endamoeba dysenteriae* in tissues rests upon the nuclear structure and the appreciation of cytological differences between amoebae and human cells. Of greatest value in this detection are the volumetric relations of nucleus and cytoplasm, and the characteristic structure of the nucleus. No human cells have the cytological picture of amoebae. A final critical feature of the highest diagnostic value is the type of mitosis found in the sarcodine protozoa, especially in the amoebina. The process of mitosis in these forms is characterized by the persistence of the nuclear membrane throughout the whole period of cell division, the formation of the intradesmose from the karyosome which migrates to the side of the nucleus, divides into daughter karyosomes which move to the poles of the intranuclear spindle and form there the polar caps or centrosomes. These spin out between themselves a meridional black line on the nuclear membrane. This line is the intradesmose. This type of division is not known to occur in any human cells, or in fact, in any metazoan cells. Furthermore, *Endamoeba dysenteriae* has six chromosomes, whereas there are forty-eight in human cells.

Motile amoeba in the dysenteric stools in the tissues of the bowel adjacent to the ulcers of the colon, are of the large type, from 30

1. Kofoid, C. A., and Swezy, O.: "The Cytology of *Endamoeba gingivalis* (Gros) Brumpt Compared With That of *E. Dysenteriae*, With Special Reference to the Determination of the Amoebas in Bone Marrow in Arthritis Deformans of Ely's Second Type," Univ. Calif. Publ. Zool., vol. 26, p. 165, 1924.

to 50 microns in diameter. Prior to encystment the volume of cytoplasm is greatly reduced. In chronic amoebiasis, the volume of the amoeba seems generally rather smaller than in the acute stage of the disease. The cysts tend to be smaller and the amoebae in the tissues, apart from active ulcers are of smaller volume as a rule than those of the ulcerating area. They seem also to feed far less frequently on red blood corpuscles, and perhaps to be serum rather than corpuscle feeders.

The tissue invasive capacities of *Endamoeba dysenteriae* have been demonstrated by the finding of the amoeba in advance of the area of ulceration in the submucosa of the colon, in the lymph glands adjacent to ulcerating areas, and especially in the capillaries and larger blood vessels of the peripheral serosa of the colon. The hepatic portal venous system is thus invaded by the motile amoebae which may sometimes be seen in passage through the walls of the blood vessels and are found in large numbers in their lumen. This portal system affords an avenue for their invasion of the liver, where they have been found in liver abscesses, both in the pus of the abscess and in areas beyond the immediate wall of the abscess. The recovery by us of amoebae in duodenal drainage indicates liver infection in the absence of abscess. The group of clinical signs which include slight enlargement of the right lobe, local tenderness and gallbladder enlargement, supplements our knowledge of the presence of amoebae in this area.

Their entrance into the general systemic circulation is indicated by the occurrence of amoebic abscesses in the lung and brain, or by the detection of amoebae in the epididymis, the semen, the bladder, or in the tubes. They have been reported in the skin of the perineal area and in phagodenic ulcers around areas of incision in cases of liver abscess. We have had one instance of phagodenic amoebic ulcers of the skin on the trunk and limbs, accompanying such a case of infection at the area of incision after liver abscess. We have also found the motile amoebae in the excised head of the femur in a case of arthritis deformans of Ely's second type, and in the lymph glands in three cases of Hodgkin's disease.

There are clinical indications of infection of other areas of the body, as in rheumatoid iritis. Biological indications suggest the possibility of the hematogenous distribution of amoebae and their lodgment in areas suitable either because of structural or other conditions, or because of local disturbances which affect either the circulation or the local biochemical conditions. The distribution and behavior of *E. dysenteriae* suggest that it is positively chemotropic to the bloodstream and its distribution indicates a predilection for areas of mesenchymatous origin.

In the course of our investigations we have made over 46,000 examinations of somewhat more than 15,000 persons. From our association with physicians in charge of these patients, we conclude that these cases represent not a normal cross section of the population, but a highly selected group of persons in physicians' care, with a predominance of the neurasthenic, rheumatic or intestinal type of mild invalidism. They include also an unusual number of persons in whom the diagnosis is obscure or complicated.

In this group, the incidence of infection by *Endamoeba dysenteriae* in our monthly summary of from 500 to 1,200 examinations of from two to three hundred persons, is from 10 to 20 per cent. In the examination of several groups of from 60 to 100 persons, not thus selected, we find a much smaller percentage and estimate that it may not exceed 1 per cent, as a rule.

A tabulation of 7,000 persons examined by us, made several years ago, indicates that those who have traveled extensively have about 100 per cent higher infection than a group that had given us no data on travel or that had not traveled beyond the confines of the State of California. We do not think this has any geographical significance, but is more or less indicative of the increased risk of infection which all persons run, who eat from many hands. Travel multiplies the opportunities of such contacts, and travel in the tropics takes the person into areas of lower standards of sanitation and higher incidence of infection. Amoebiasis is not, however, limited to the tropics, but occurs widely in the human race. The nearest relatives of some of the amoebae of man are found in apes and monkeys, and the human infections are doubtless the product of the evolutionary process. The parasites of man have had their descent from the parasites of man's ancestors.

Our records contain many instances of infections in three generations. Infection is spread only by the encysted stage, and through the contamination of food or water by cysts from the stools of an infected person. Infected food handlers and the common wash bowl near the toilet, are probably important avenues for the transmission of this infection. It is also probable that house flies, which feed upon and breed in human feces in districts where the open privy prevails, are a common avenue for the carriage

of the cysts from infected stools to food. Cysts are not destroyed by transit through the digestive tract of the fly.

The relationship of amoebic infection, not only to dysentery, but to chronic intestinal trouble, to local abscesses, and to certain arthritic conditions, makes this infection an important one in medical practice in our own country. This infection also constitutes a complicating factor which should be borne in mind in all cases where diagnosis is obscure. A thorough-going, accurate stool examination by a competent examiner trained in protozoology, is highly desirable in any complete physical examination.

ABSTRACT OF DISCUSSION.

Dr. A. E. Greer, Houston: I have always believed that large doses of bismuth were essential to good results in the treatment of amoebiasis. Another thing to keep in mind is that this is a persistent infection, and to be sure of a cure, many courses of treatment must be instituted.

Dr. Kofoid (closing): I am not a physician, but my laboratory findings indicate the inadequacy of emetin or ipecac alone in eliminating amoebic infection. Bismuth subnitrate is reported to relieve the symptoms but has not been proven to eliminate the infection. Emetin-bismuth-iodide (Burroughs-Wellcome) shows the best record for the elimination of amoebiasis, according to our laboratory findings. Under the microscope, iodine can be seen to penetrate the encysted stages of the amoeba very quickly. Quinine therapy in the colon has been used, but it is a local treatment. Quinine is not an amoebicide.

The standard method of treatment among clinicians as reported to me, is as follows: the administration of emetin-bismuth-iodide and emetin hydrochloride as directed by the manufacturers, and a normal course of arsphenamine given coincidentally is considered a maximum for one course. This course may, if necessary, be repeated, depending on the therapeutic effect and the tolerance of the patient. The treatment is reported to be a severe one and must be given with all precautions within the patient's tolerance. Yatren and stovarsol appear as yet to be in the experimental stage. Critical tests of the efficacy of treatments can be secured only by repeated series of stool examinations several months after the termination of treatment. Single examinations with negative findings have no critical value.

The Moore Pyorrhea Remedy Fraud.—The Government has debarred from the use of the mails the Moreham Company, Fred Hamilton, Moore's Medicine Laboratories, Inc., and Moore's Laboratories, all of Kansas City, Mo. These various concerns have for some time been exploiting, largely on the mail order plan, an alleged cure for pyorrhea. The alleged remedy was found to consist essentially of emulsified coal-tar cresol with a little pyridine or coal-tar base, was emulsified with rosin soap. The government presented evidence to show that the medicine would not heal a case of pyorrhea and would not cause "receding, inflamed and bleeding gums" to become "firm and pink," it would not "tighten loose teeth" nor would it "conquer pyorrhea" by causing the germs to "just clump right up and quit the job," as claimed.—*Jour. A. M. A.*, Sept. 26, 1925.

ASTHMA AND SINUS DISEASE IN CHILDREN.*

BY

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Not until comparatively recent years has attention been called to paranasal sinus disease in infants and young children—at least, only within recent years has this disease been looked for routinely and diagnosed.

In reviewing the literature, first mention came in 1847 by G. A. Rees in a child two weeks of age in whom a diagnosis of empyema of the antrum was made, following an orbital cellulitis and a fistulous opening between the antrum and the orbit. Several similar cases were reported in later years. In 1911, Hubbard recognized the rhinitis of scarlet fever as being due to sinus infection and mentioned that it was common in acute exanthemata. Practically no mention of this affection has been made in text books on Pediatrics, until Abt's recent publication. The work of L. W. Dean during the past five years has added a much needed stimulus to rhinologists for a more thorough examination of the sinuses, and has led to recognition of causative factors in obscure cases of asthma, endocarditis, chorea, pyelitis, etc. Today, pediatrists are investigating along similar lines and are coming to recognize sinus disease in children as a distinct entity. It has been found to be much more common than was formerly supposed.

Asthma in children is an old subject, and the trend of thought in the literature on etiology has been toward protein anaphylaxis and having as its portal of entry, ingestion or inhalation. In fact 90 per cent of writers on this subject give the above etiology. Holt, a well known pediatrist, says: "Asthma is often hereditary. It frequently occurs in children who in infancy suffered from eczema. The local cause may be any form of irritation in nose or throat—hypertrophic rhinitis, adenoids or hypertrophied tonsils, or in the bronchial mucosa."

ANATOMY.

The antrum of Highmore is always present at birth. The average dimensions are 8x6x4 mm. From birth to the eighth year, this sinus enlarges at the rate of from 2 to 3 mm. in each dimension. The position is not the same as in an adult. *X*-rays show that the floor of the sinus at birth is about the level of the attachment of the inferior turbinate. Below this level are the rudiments of the deciduous and permanent teeth. With the

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eruption of the teeth, the floor of the antrum descends.

The ethmoid cells, both anterior and posterior, are always present at birth. They vary in size from one to six mm. in the three dimensions and their number is quite variable.

The frontal sinus is not sufficiently developed to be called a sinus until about the age of five, sometimes younger. Cases have been reported where the frontal sinus was operated upon in children of three and five years of age, but I have never seen trouble in a child of less than eight years of age.

The sphenoid has an average capacity of 6 cu. mm. at birth. There has been some controversy as to whether this cavity exists as a true sinus at birth. The growth remains practically stationary until the age of three, when it develops very rapidly and, at ten, reaches almost adult size. I have seen a case of meningitis in a five-year-old child go to autopsy at which a sphenoid full of pus was found.

ETIOLOGY.

First and foremost in the list of causative factors of paranasal sinus disease are tonsils and adenoids—particularly the latter. They are in close proximity to the sinuses and one can readily see the reason for the dual infection. The acute exanthemata, especially scarlet fever, come second. General constitutional conditions must also be regarded as factors.

SYMPTOMATOLOGY AND DIAGNOSIS.

Discharge from the nose of a thick purulent character, and persistent after removal of tonsils and adenoids, mouth breathing, and frequent sneezing are common symptoms. Postnasal discharge must be kept in mind and looked for. The constitutional symptoms are anorexia, anemia, gastro-intestinal disturbances, failure to gain, etc.

Anterior rhinoscopy reveals the presence of pus or crusting, an inflamed condition of the mucous membranes, and hypertrophy or polyps of the turbinates. Posterior rhinoscopy is difficult in children. A nasopharyngoscopic examination is usually done under a general anaesthetic and is of considerable value in the examination of the posterior sinuses. Transillumination is of little value. Children are too small to coöperate. The antral floor is thickened due to unerupted teeth. In older children a negative result may be valuable. In an *x*-ray examination the most information is obtained from an antero-posterior picture. A lateral picture may be of some value in diagnosis of sphenoid infection.

An endonasal-puncture is done with the patient under a general anesthetic. Having before you an antero-posterior view of the sinuses, the procedure is as follows: the nose, in the inferior meati and about the inferior turbinate is cleansed with alcohol, using a cotton tipped probe; a trocar is inserted into the antrum, the point of entrance being about the attachment of the inferior turbinate. If the floor of the antrum is high, entrance is gained through the middle meatus. The stylet is withdrawn and a long needle attached to a Luer syringe is inserted. From 3 to 6 cc. of water is forced in and aspirated a few times in order to break loose adherent pus, and the washings are withdrawn and examined macroscopically. Mucopurulent shreads in varying amounts or frank pus will usually be found if the sinus is infected. The washings are then sent to laboratory for microscopic examination and culture.

In diagnosing suppuration of the sphenoid, after determining the presence of the sinus, a silver cannula attached to a syringe is inserted and the sinus aspirated. If pus is obtained or the sphenoidal wall found necrotic, a diagnosis of empyema is made.

During the past few years I have had occasion to see a number of asthma cases in children. Of this number about 40 per cent had sinus disease which was found in a routine examination for some focus of infection.

CASE REPORTS.

Case No. 1.—O. S., a boy, aged 11, entered the pediatric service, November 22, 1921, complaining of asthma, which began at the age of two years with attacks of dyspnea coming on about once a week and has been present ever since. Attacks became more frequent and more severe in the winter or in damp weather. His father had asthma for years. The child had had measles, chicken-pox, influenza and whooping cough.

On examination, the chest was barrel-shaped, and there was a hyperresonant percussion note throughout chest, with harsh breath sounds, intensified voice and small moist rales throughout chest. The urine was negative, and also the Von Pirquet and blood Wassermann tests. The leucocyte count was 11,800, with polys 55 per cent, lymphos 39 per cent and eosinophiles 5 per cent. As to skin reactions, the pollens and food allergens were negative.

Muco-pus was present in each side of the nose, the mucosa was reddened, the turbinates enlarged, and the antra blurred in the *x*-ray picture. The anterior ethmoids were clear; the frontals small and apparently clear. The throat and teeth were normal, and occlusion good. The tonsils were chronically diseased and the pillars reddened. The lingual tonsil was somewhat enlarged and adenoids were present. The ears and eyes were negative. Both antra were punctured and aspirated, January 1, 1922. The washings contained frank pus, whereupon an antro-meatal opening was rasped out, and the tonsils and adenoids were removed. After the usual post-operative care, the patient was discharged in ten days and told to return in six weeks. At the end of that time, he had coughed several times but there had been no wheezing and he had been free

from asthmatic attacks. He had a slight cold but stated that prior to operation a cold always meant an asthmatic attack. Examination showed the nose to be clean and the antral washings clear. Seven months later, he returned. He had been feeling fine and gaining in weight rapidly. He had been free from asthma until two weeks before reporting to me. At that time the patient went swimming and got chilled. Shortly after, a typical asthmatic attack came on, lasting several hours. He had had no attack since.

Examination showed some muco-pus in the nose. Antral washings contained a few shreds of muco-pus. When seen one year and a half later, the patient had been free from asthma the entire time. This case is interesting as the child had suffered from asthma since he was two years of age and was getting worse. We cannot say *positively* that his asthma was due to the antral empyema, because the tonsils and adenoids were removed at the same time.

Case No. 2.—M. S., aged 7, entered pediatric service, March 7, 1919, complaining of asthma. The first attack occurred at four years of age, and he has had recurrent attacks ever since, which are much worse in the winter and have no relation to food. Some of his relatives have asthma. The patient had had measles, mumps and chickenpox.

Examination showed a barrel-shaped chest. The abdominal type of respiration and a hyperresonant percussion note. Sonorous and sibilant rales were heard over the chest. The urine was negative. The Von Pirquet reaction was negative. The examination showed blood 100 per cent hemoglobin, 5,650,000 erythrocytes and 9,400 leucocytes, with polys 72 per cent, lymphos 15 per cent, and eosinophiles 12 per cent. The blood Wassermann was negative. The pollens and food allergens were negative.

The nasal septum was deviated to the right, with spurs at the base. The middle turbinate showed polypoid enlargement. No pus was seen.

Nasopharyngoscopic examination showed muco-pus in right middle meatus. The right antrum was blurred in the *x*-ray, the anterior ethmoids were clear, and the frontals budding. The tonsils and adenoids were diseased. The ears and eyes were negative.

The tonsils and adenoids were removed May 31, 1919, and both antra were aspirated and washed. Pus was obtained from the right antrum only and a hole into it was rasped, through which post-operative irrigations were made. A culture of the pus showed the hemolytic streptococcus. The patient was discharged in two weeks in good condition. Two months later, the patient returned, he had had three attacks of asthma since operation. An examination showed pus in the right antrum again and an antromeatal opening was made. The patient returned one year later. A letter was received from the mother four years later, saying that the child had had three attacks in four years.

Case No. 3—L. A. W., aged 9, was seen November 20, 1924, complaining of asthma. The onset of the trouble came at two years of age, and since then attacks have occurred about once a week in warm weather and almost daily in winter and in damp weather. His tonsils and adenoids were removed at three years of age. His father had had asthma for thirty years. This boy has been seen by a number of doctors who have stated that the asthma was inherited and nothing could be done. He had had measles, mumps and scarlet fever.

On examination, the chest was of the emphysematous type, with moist rales over the entire chest. The urine was negative, as were the blood Wassermann and Von Pirquet reactions. The blood count showed: Leucocytes 9,200, polys 54 per cent, lymphos 39 per cent, eosinophiles 7 per cent. Skin tests were negative.

There was muco-pus in the right nose, the nasal mucosa was reddened, and both middle turbinates enlarged and polypoid. The *x*-ray showed both antra to be blurred, but the anterior ethmoids and frontals and the sphenoid clear. The tonsils were out cleanly but a small mass of adenoids was present.

Under general anesthesia, an endo-nasal puncture was done and a few shreds of muco-pus were obtained from both antra. A hole was then made into each antrum with a rasp and the middle turbinate was trimmed on because it was markedly polypoid. The usual postoperative treatment of daily irrigations was followed by silvol 10 per cent. The asthma ceased and he has had but one attack since, when he caught cold. At this time there was considerable discharge of pus from his nose.

Case No. 4.—This patient gave practically the same history as the preceding cases. His tonsils and adenoids had been removed one year previous to his entrance to the hospital, December 10. 1923. The *x*-ray showed blurred ethmoids, sphenoid and right antrum. A Sluder operation of the ethmoids and sphenoids was done. The boy had been free from asthma six months after operation, but I have not heard since, so a definite statement cannot be made.

TREATMENT OF PARANASAL SINUS DISEASE.

Since 75 per cent of cases of asthma in children will clear up after removal of the tonsils and adenoids, this is always the first procedure. In treating the maxillary antrum, a hole should be rasped through the inferior meatus. Never rasp the floor of the sinus for fear of injuring the tooth-buds. The sinus is irrigated daily, followed by instillations of 5 per cent argvol or 2 per cent mercurochrome. This should be continued as long as the washings are cloudy. Suction should be used in the nose when the discharge is profuse.

Suppurative sphenoiditis usually requires a breaking down of the antero-inferior wall of the sinus and postoperative irrigations. Suppurative ethmoiditis requires a more or less complete exenteration of the ethmoid labyrinth.

In non-operative and postoperative cases there is always one essential, i. e., the best of hygienic surroundings, sunlight, fresh air and food rich in vitamines. The general condition of the patient should be looked after by a pediatrist. The danger of exposure to cold and wet weather should be emphasized.

CONCLUSION.

1. In all cases of asthma, the sinuses should be considered a causative factor until proven otherwise.

2. Negative proof should be arrived at only after repeated examination by a rhinologist.

ABSTRACT OF DISCUSSION.

Dr. S. J. Clark, Austin: Dr. Jenkins' paper should stimulate us to be more careful and thorough in our

routine examination of the nasal and throat cavities. Sinus trouble is more prevalent in children than is realized. Respiratory disturbances begin in the nose and throat, and for this reason proper attention to the hygiene of these parts is important from the beginning. An examination for sinus trouble in children is, of course, more difficult and generally requires a general anesthetic in order to explore the sinuses for diagnosis and treatment. Obstruction in the nasal or postnasal space means trouble very early and should be corrected in order to prevent complications arising throughout the nasal and accessory cavities.

Severe head colds are not confined to the nasal cavity proper but involve the adjacent cavities more or less, and for this reason the inflammation, congestion and discharge is much longer in clearing up and, in a certain number of cases, does not entirely clear up. These are the cases that should have proper attention early, in order that the parts may be restored to normal as soon as possible. Free drainage, ventilation and aëration of the nasal and accessory sinuses is the only safeguard in addition of course to proper food, clothing, etc.

Asthma is very largely a reflex disturbance, beginning in the nose and throat. Irritation from any source is a predisposing factor and acrid secretions from infected sinuses will cause hyperesthesia and congestion of the mucous membranes with which they come in contact. Asthma may also result from the irritation acting reflexly and does in a certain number of cases. The pressure of persistent abdominal secretions in the nose or throat indicates sinus trouble, obstruction or foreign body. Whatever the cause is, it should be investigated and removed if possible.

Dr. Jenkins gives some very interesting case reports which justify everything he has to say on the subject. His paper is a very important contribution to this section.

Dr. H. L. Warwick, Fort Worth: Although my experience with asthmatics has not been large, I can heartily agree with Dr. Jenkins that the sinuses are too frequently overlooked in examining patients with this affection, and especially so by pediatrists in their routine examinations. Some few weeks ago I made a number of *x*-ray photographs of fetuses ranging in age from five to nine months, and only in those of seven months and older was there to be seen any clear indications of sinuses.

In fetuses of seven months were seen the antra of Highmore and the ethmoid cells. These are best seen in the postero-anterior picture. As the age of the fetus increases, the sphenoid sinus becomes discernible, this being seen in the lateral view.

Dr. Jenkins' paper leaves no doubt in my mind but that proper attention to sinus infection will go a long way in curing asthma in children.

Dr. R. H. T. Mann, Texarkana: I want to report one case. I operated on this man's nose twelve or fourteen years ago for an infection of the ethmoids, which produced asthma. He was relieved for ten or twelve years, when he came back to consult me again. An examination of his nose revealed that he had some polypoid growths in his nose. The polypi were removed, and he was again relieved. However, he had more or less trouble when he was exposed to riding in the dust in the country and consulted me again about this condition.

Since his trouble seemed to be an infection of the nose which was aggravated by the inhalation of dust, I suggested that he try a treatment of chlorine gas. I gave him one treatment and the next morning he phoned me that he had spent a rather bad night and was afraid to receive further treatments. However, he changed his mind and phoned the office, just a little before noon, stating that he desired another treatment. He was given a second treatment of chlorine gas. Just about the end of the treatment he developed a most violent attack of asthma, and was relieved only by a hypodermic injection of adrenalin. He returned to his home, and just before he retired that night he had his wife fix a hypodermic of adrenalin, to be used should he have another attack during the night. However, he did not have this attack, and phoned me the next morning that he felt considerably relieved, except for a soreness in his chest. He stated that these attacks had usually lasted about a week, while this one was cut short at the end of little more than 24 hours.

I have found that the use of chlorine gas in infections of the nose, throat and chest, where there already exists an irritation in the chest seems to produce more irritation temporarily, but by using a simple cough mixture until this irritation has subsided, the gas can be given and the patients relieved in a much shorter time than when chlorine gas is not used. However, chlorine gas should not be used in cases of asthma, except those of an infective origin.

Dr. Ray Daily, Houston: I want to sound a note of warning against the use of chlorine gas in asthma. Its administration will almost invariably produce an attack of asthma, in people subject to this affection. We came to this conclusion shortly after beginning to use chlorine gas in respiratory infections. I noticed in the last circular sent out by Dr. Sawyer, that he also advises not to use chlorine in asthma.

Dr. S. R. Kaliski, San Antonio: I believe that this subject should be approached with humility rather than dogmatically, because of the lack of really definite, time-tested knowledge about all the etiology of asthma. At present, the pollen etiology seems to be the one best substantiated by well controlled clinical and experimental data. But it is plausible to reason that in those cases of asthma apparently due to sinus disease an allergic rhinitis may be responsible for both the sinusitis and the asthma.

Dr. I. S. Kahn, San Antonio: This paper is very interesting to the man who has handled asthma. It has always been a question whether conditions in the nose and throat have any connection with asthma. Unfortunately, the man who is doing asthma work sees only cases that have been failures in the hands of the nose and throat men. We cannot say that all of these were handled by poor nose and throat specialists. Many of these asthma cases with the proper care of their asthma will recover in spite of marked pathology in the nose. After these cases have been desensitized they still show the presence of much sinus pathology or nasal deformity. Curiously enough, on the other hand, the nose and throat specialists will occasionally report good results. The longest time I have seen a patient free from asthma after a nose operation was six years, but the asthma returned then. If the nasal mucous membrane is sensitive to pollen and the bronchial membrane is sensitive, I cannot see why the sensitiveness should not increase in the presence of infection. One of our most competent internal medical men in San Antonio, has a boy with asthma. This boy has asthma only when he has a cold. His skin test shows slightly positive to feathers. Without a cold, he will not have asthma; but when he has a cold, he cannot sleep on feathers without asthma, but can sleep on cotton pillows without having asthma. The skin tests in this boy were exceedingly slight and had previously been considered negative. If there is any connection at

all between asthma and nose and throat conditions, it seems to me that it is along this line, and that the relief of asthma by surgical measures is due to the removal of irritating infections in cases of no great degree of sensitiveness to their specific causes.

Dr. Jenkins (closing): Let me emphasize what I have already said, namely, that the sinuses should be considered as a causative factor until proven otherwise. Negative proof should be arrived at only after repeated examination, by a rhinologist. I hope that this paper will stimulate some interest, and that, as a result, a more thorough search for sinus infection in young children will be made.

ACUTE HEMORRHAGIC CORTICAL ENCEPHALITIS.*

BY

L. O. WILKERSON, B. S., M. D.,

BRYAN, TEXAS.

Virchow, by 1865, had made exhaustive studies of the pathology of encephalitis of the new-born, and nineteen years later, Strumpell first directed the attention of the medical world to this subject, by his paper on infantile cerebral palsies being frequently caused by encephalitis.

In 1885, Leichtenstern described a case of acute non-purulent encephalitis occurring during the course of an epidemic of cerebrospinal meningitis, and he was the first to advance the thought that the disease was due to an infection. Several typical cases were reported during the influenza epidemic of 1889-1891, noteworthy among these being those reported by Furbringer, Konigsdorf and Schmidt.

ETIOLOGY.

Acute hemorrhagic encephalitis of the cortex is usually bacteriological or zymotic in origin. Either the inflammation is due to the direct invasion of the cortex of the brain by the bacteria which cause the primary disease, as for instance in influenza; or it is due to the peculiar zymotic agency or to the ptomains of the other acute infectious diseases, as when it occurs as a complication of measles, scarlatina, etc. Cortical encephalitis is most frequently seen during the course of an influenza epidemic. It may occur as a primary disease with no evidence of respiratory or intestinal infection, or during an attack of ordinary influenza, or it may follow in the course of a few days, or even weeks or months later.

Encephalitis may occur during epidemics of cerebrospinal meningitis, without involvement of the meninges. It often follows the acute infectious diseases, such as measles, typhoid, scarlatina and diphtheria. Trauma is frequently the cause: first, in a mechanical way and by direct infection; and, second, by the bruised brain cortex becoming the seat of a circulatory infection. Whether alcohol, ptomain poisoning from fish or meat, or any of the metallic poisons can produce an acute encephalitis of the cortex of the brain, is doubtful.

PATHOLOGY.

The hemorrhagic is the most frequent form of acute encephalitis of the cortex. There are usually multiple circumscribed areas varying in size from a pin-head to a dollar and often symmetrically distributed. These areas are infiltrated with serum and are bright red, purplish brown or yellowish in color, according to the duration of the disease, and are slightly raised above the general level of the surrounding cortex. Microscopically, the arterioles and capillaries are dilated and there is a transudation of red and white blood corpuscles into the surrounding tissues.

The above process may terminate in complete recovery or there may be permanent defects such as scar or cyst formation. Nerve fibres, especially tangential fibres, are usually involved in the scars. Over some of the cysts, the pia mater is adherent and miscroscopically, there is found in the wall granular debris, leukocytes, a few red blood cells, disintegrated ganglionic cells, and giant cells, but very little connective tissue.

SYMPTOMATOLOGY.

There may be prodromal symptoms such as headache, vertigo and general malaise for a few days, but more often the onset is sudden, usually with a high fever, but rarely with a chill. The climax is reached in from one to seven days, as a rule. The developed mental symptoms resemble very much an acute attack of derilium tremens.

In primary encephalitis the onset is sudden, with headache, vertigo and general malaise. Occasionally, a chill ushers in the rise of temperature, which is at once high, 102° to 104° F., with a rapid, small pulse. When the primary disease is elsewhere, the encephalitis comes on with an increase in the fever, vertigo and malaise, and the pulse becomes more rapid and small. Restlessness and a desire to move about precedes the delirium; collapse is infrequent. The blood-pressure is normal and the pupillary reactions and eyegrounds show no change as a rule. The reflexes vary, being sometimes normal; sometimes increased, or even reduced. There is no retraction of the head and Kernig's sign is negative. When delirium develops, there is restlessness, jactitation, sleeplessness, and frequently hallucinations, the patients calling to supposed friends and answering voices which they think they hear. They often pick at the bedclothes, remove imaginary bugs, mutter incoherent sentences, etc. In the state of coma, there are involuntary dis-

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*Read before the Falls County Medical Society, Marlin, Texas, June 8, 1925.

charges of feces, retention or incontinence of urine, and at times bed-sores. Death occurs from exhaustion.

The focal symptoms consist of paralysis, which comes on very suddenly and is rarely complete. If complete, it rapidly improves in a few hours to a few days. Aphasia, both motor and amnesic, and paraphasia are seen.

The spinal fluid may be under pressure, but usually it is not. The cell count may be increased but is rarely very high. Lymphocytes are generally the ones which show an increase. Positive cultures are gotten in certain of the infections, being present in both cases in this report. The Wassermann was positive in one case and positive with blood serum in the other but negative with spinal fluid one day after injection of .3 grams of neosalvarsan. The leukocyte count is from 10,000 to 12,000, with polynuclears from 75 to 85 per cent.

Permanent defects remain in some cases. These may consist of paresis which is more or less spastic in character. Contractures may develop in children, but in adults it may manifest itself as a slight weakness or awkwardness of an arm, leg, or a whole side. There may be some defect of speech, even for a long time afterward. The most serious of all the sequelae, however, is epilepsy, usually of the Jacksonian variety, but sometimes of the general type.

TREATMENT.

The treatment is symptomatic. Urotropin has been given, due to its supposed antiseptic action on the spinal fluid, with very questionable results. Lately, mercurochrome, gentian violet, and other similar preparations, have been given intravenously for various infections, and several cases of encephalitis have been reported as treated with these.

Recently, the author has seen two cases of acute hemorrhagic encephalitis of the cortex, one of which recovered following treatment with mercurochrome. A short report of these two cases follows:

CASE REPORTS.

Case No. 1.—N. C., a negress, aged 28, was married but had had no children and no miscarriages. Her past history was very indefinite. Present illness: She had been cooking, but about two weeks before I saw her, she began to have spells which resembled epilepsy, as best the history could be gotten, and had to quit work.

The patient lay quietly in a half stupor, at times rousing up and answering questions about herself, and at times singing in a monotonous voice and trying to get up out of bed. She would get up and walk around with very poor use of her extremities, and wander aimlessly about. Her temperature was 101° F. plus; her pulse 120 and weak. Her eyes reacted to light and distance, eyegrounds not examined, throat negative, lungs negative, heart negative, B. P. 110/80, abdomen negative, vaginal examination negative, urine negative, no enlarged glands, reflexes sluggish, W. B. C. 10,500. After two days of symptomatic treatment, a spinal puncture was done and the fluid was found to be under no tension, clear, cell count 17, the Wassermann ++, and a small diplococcus was obtained on culture and could be seen in unstained specimens. Urotropin 30 grs. was given intravenously, but the patient died 20 hours later before any mercurochrome was obtained.

Case No. 2.—R. A. F., aged 44, white, male, was first seen April 5, 1925, when he gave the following history: His past history had been negative except for a "chancroid" about twenty years previously. Six weeks before I saw him, he had influenza for several days, and since that time he had had a constant headache in both temporal regions, which had constantly gotten worse in spite of ordinary treatment. So far as he knew he had had no fever. He had been very dizzy for the past few days and could not walk straight. He also had blind spells which would last for one or two minutes, during which time he could see nothing at all. His whole left side felt numb and he could not use either his left arm or leg as well as the right limbs.

His temperature was normal, his pulse 72, the ocular reactions normal, although the right eye was kept partially closed most of the time, the eyegrounds negative except for a black spot on the right retina, which he had had for a number of years. The lungs, heart, abdomen and urine were negative. The reflexes were markedly exaggerated and there were enlarged epitrochear glands. The blood-pressure was 125/90, and the leukocyte count was 12,000. The patient would stagger considerably when he tried to walk. A tentative diagnosis of syphilitic meningitis was made and .3 gm. of neosalvarsan was given. A few minutes after the injection of the neosalvarsan, the patient vomited considerably. Four hours later, he developed a complete paralysis of the right side, which lasted for two hours and then completely cleared up. This was probably due to the neosalvarsan, as such reactions occur after its administration in the presence of acute infections of the brain or its coverings. This was followed by the administration of "mixed treatment." The left side remained the same. On April 6, a spinal puncture was done, the pressure was normal, the fluid very slightly turbid, the cell count 37, polys 62 per cent, lymphocytes 38 per cent. The spinal fluid Wassermann was negative (probably due to the neosalvarsan, as six days later the blood Wassermann was positive). The culture showed a small diplococcus. The temperature went to 100° F., the pulse was 74, and his general condition remained the same. Urotone 30 grs. was given daily intravenously, his bowels flushed out well, and 10 grs. of veronal was given at bedtime, for insomnia. The "mixed treatment" was discontinued.

On April 12, the blood Wassermann was positive. His general condition remained about the same. The temperature was normal for the last five days and the pulse slow. Mixed treatment was prescribed in addition to urotone, daily. The patient was slightly cross-eyed and seeing double. The next day the patient began sneezing, and developed an acute rhinitis, with a temperature of 99° F., pulse of 74, and the general condition remained about the same. On April 22, the temperature had been gradually getting higher each day while the pulse remained relatively slow. There were chilly sensations, at times. The urine showed albumin, casts, pus, and some diplococci and streptococci. His appetite was poor. He still sneezed, at times. The "mixed treatment" was again discontinued. Urotone was given by mouth instead of intravenously. On May 1, his temperature was 104° F. and pulse 100. There was a rash on his face, arms, feet and back, resembling

nettle rash. A blood culture was positive for the same diplococcus found in the spinal fluid. His appetite was poor and his general condition was getting worse rapidly.

On May 2, mercurochrome grs. 1 in 10 cc. of distilled water was given intravenously and his temperature was not over 102° for the next three days, but the rash and chilly feelings continued. After three days the mercurochrome was repeated. On May 7, his temperature was 102° F., pulse 80. The urine showed less albumin, casts and pus, but some bacteria. His general condition was very bad; he had a chilly feeling daily, and the rash was still present. Mercurochrome, 20 cc. of a 1 per cent solution was given intravenously, and the patient had a severe chill, temperature of 103.4° F., pulse of 106, and a respiration of 40.

On May 10, his temperature had continued about 101.4° F., his pulse 80, and his general condition about the same. Mercurochrome, 15 cc. of a 1 per cent solution was given intravenously with very little reaction; his temperature being 102° F., pulse 100, respiration 24, and urine about the same. He had involuntary passages of feces and urine during the night, and talked incoherently at times. He could not remember more than one day previous, and would get up and roam about the room at night. Two days later, his condition was better but still grave. Twenty cc. of a 1 per cent solution of mercurochrome was again given. This time he had a severe chill, a temperature of 105.6° F. by axilla, a pulse of 110, respiration 30, and he began to show signs of salivation. The next day the temperature was 100° F. at its highest, the rash had disappeared, the blood culture was negative, and the urine about the same. By May 23, his general condition had improved rapidly, the patient was hungry, gaining weight and feeling much better, and he was discharged from the hospital. There was still weakness and partial disuse of the left side, no headache and normal vision, but still some staggering when he walked.

On June 4, the patient was able to walk very well with a cane. The urine had cleared up, the left side was still weak, vision was normal, and his general condition had so improved that he was permitted to return to his home, some thousand miles away, to complete his convalescence.

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PERIARTERIAL SYMPATHECTOMY.*

BY

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Periarterial sympathectomy, which was first popularized by Leriche, in 1914, and reported in a series of 64 cases, is the excision of a segment of the sympathetic nerve from the walls of one of the larger blood vessels in order to block vasoconstrictor impulses in the extremity beyond. Broadly, the indications are those pathological phenomena characterized by some type of endarterial obliteration, producing insufficient blood supply in the extremeties, such as: trophic ulcers, Raynaud's disease, endarteritis obliterans, causalgia, and diabetic gangrene—the prognosis in any of which is so grave. The idea is that, by removal of a segment of the advential coat, and with it stripping away the sympathetic fibres of one of the main arteries supplying a part, influence is had on the vasoconstrictor impulses, and so through uninhibited vasodilation, hyperemia is had in the part needing it. The vasoconstrictor fibres belong, as you know, to the sympathetic autonomic group, consisting of preganglionic fibres from the central nervous system and postganglionic fibres from the cells of some sympathetic ganglion. These nerves form plexuses between the media and adventitia of arteries, and pass through to terminate in contact with the muscle fibres. There is a prompt and definite change, consisting of a contraction of the artery, lasting ten to fifteen hours, which is followed by a hyperemia, with a rise of temperature of one or two degrees in the extremity below the section and a rise of as much as 40 mm. in the pressure, which lasts for from 30 to 40 days. The vessel attacked in the upper extremity is the middle third of the brachial as it passes under the belly of the biceps; while in the lower extremity, the femoral is used, the approach being in its passage through Scarpa's triangle. When the vessel is reached, it is freed from its bed for a distance of from 6 to 8 cm., and a small rubber tube is passed beneath it and fixed at the proximal end, for constriction if necessary. Two circular incisions are now made around the vessel, about 4 to 6 cm. apart, which are then connected by a linear incision just through the adventitial coat which is dissected away, exposing the network of sympathetic nerves. This network is dissected off in the same manner. The vessel may be gently rolled to either side to facilitate this dissection. The wound is closed snugly throughout, which closure gives sufficient support to the vessel walls. This procedure is readily done under local anesthesia. This operation is contraindicated in cases of senile gangrene on account of extreme friability of the blood vessels. Further contraindications may be found through an *x*-ray study in cases where the lumen of the more distal blood vessels is extremely limited or obliterated. This is done by Brooks' method of injecting sodium iodide into the blood-stream, which is followed by a momentary stasis, when a skiagram is made.

Following Leriche's series of 19 traumatic contractions (11 of causalgia; 10 of trophic sloughs; 2 of Raynaud's disease; 1 of trophic ulcer after frost bite; 2 of trophic sloughs in old stumps), resulting in relief of pain in

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about 90 per cent of all cases, and in either cure or improvement in about 70 per cent, very little has been written until about a year and a half or two years ago. Since that time, some dozen surgeons have made reports, the consensus of opinion of which seems to be that much hope is to be held out because of almost uniform encouraging results.

Halstead reports a case of endarteritis obliterans, in a man, aged fifty-five, who had been treated with sodium iodide and everything else, from April to September, who was discharged in thirteen days after operation, and ten months later was still working as a conductor. Brunning, of Berlin, reports several cases, among which was one case of gangrene, that was worse for five days, and then recovered. In June, 1924, Maddren, of China, reported a most interesting case, that of a woman, who had an old luetic ulcer of the foot, of five years' duration, and who had had treatment in his clinic for years, and who, two months after operation, walked out healed. Sherwood, of Brooklyn, reports the case of an unhealed ulcer of an old stump, with exquisite pain, in which he had done repeated amputations, nerve blocking and excisions, that was relieved of pain, and discharged as cured, two months after sympathectomy.

Campbell, of New York, reports two cases: first, one of gangrene of the toes of both feet, with relief of pain after sympathectomy, and amputation of both feet, twenty days later, with primary healing of stumps and no pain; and second, a case of recurrent gangrene of the toes over a period of four years, with amputation and great pain. The second case was not followed beyond the twentieth day.

Last year I reported the results in two cases of Raynaud's disease before the Texas Surgical and the Southern Surgical Societies, and now have to add to these one of early diabetic endarteritis and one of old trophic ulcer, the result of sciatic injury.

In one case of Raynaud's disease imminent amputation was postponed for 8 months, and then amputation just above the ankle resulted in prompt healing of the stump, which was most interesting because of a series of amputations of the other leg, previously, due to the same cause. In the other case of Raynaud's there was complete obliteration of the femoral artery from the middle of Scarpa's triangle to the ulcerative stump site just below the knee. But even at this the circulation was improved for several days, the pain relieved, and the edema and gangrenous line of demarkation lessened, followed by prompt stump healing after subsequent amputation. The case of early diabetic endarteritis has now remained well for nearly five months, but of course the time is too short to know the ultimate result. He had progressed to numbness and tingling sensation of both feet which were cold, and at night, very painful, and, in spite of insulin, diet, etc., though sugar free, was getting progressively worse. Following bilateral sympathectomy there was immediate improvement, and he tells me at this time that his feet feel normal, and that he is able to do his work which requires a good deal of standing, without discomfort. He has no tingling or numbness and no pain at night.

The case of trophic ulcer of the heel as result of severance of the sciatic, two and one-half years before, was of two years' duration. Following a sympathectomy this ulcer healed in about five weeks, with no further treatment than being kept clean with mercurochrome solutions.

It is too early to draw any final conclusions, but it would seem to me:

First, that, though I am unable to explain, in the face of adverse physiological experiments and in the light of anatomical distribution, the manner in which a partial periarterial sympathectomy gives beneficial results clinically, that the difference probably lies between the physiology and Nature's effort to combat pathological conditions by increasing the blood supply.

Second, that the operation itself is so simple and so remote from incurring danger (except in cases of senile gangrene) that in these otherwise hopeless conditions its performance is certainly warranted.

ABSTRACT OF DISCUSSION.

Dr. W. B. Carrell, Dallas: Whether the results following a sympathectomy will be permanent, has not been shown, but for the temporary relief of two or three or more years that it brings, it is certainly well worth doing. For several months we have been very much interested in surgery of the sympathetic nervous system, and have noticed in all cases in which sympathetic ramisections of either the lumbar or cervical cord have been performed, a very marked hyperemia of the extremities. I believe that a more positive effect on the circulatory system results from division of the rami of the cord than from decortication. This is probably because all branches appearing from the cord are sectioned, whereas in decortication, there may be branches approaching the blood vessels at a lower level than the point selected for operation, although it is believed that very few branches join the artery as low as the brachial in the arm, or the femoral in the leg.

Dr. Frank L. Barnes, Houston: The duration of improvement in such cases is limited. Dr. Venable seems to have found a bunch of cases in which the improvement was more prolonged. I do not believe this method is of very much advantage in diabetic gangrene.

Dr. J. W. Burns, Cuero: On one case which the doctor reported as cured, I have done an amputation at the point of election. This patient now has both

legs amputated and, I think, will require a further operation. One lesson we can learn from this is that our follow-up of cases is not always perfect.

Dr. Venable (closing): As to the site of decortication, choose the site easiest to reach in the vessel's course. The whole adventitial coat is removed. I know of the case that Dr. Burns speaks of, and believe that owing to the previous sympathectomy he was successful in selecting the point of election for his amputation.

MULTIPLE MYELOMA SYNDROME IN A CHILD.*

BY

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FORT WORTH, TEXAS.

Multiple myeloma is a rare disease of bone characterized clinically by: (1) Multiple, often deforming bone lesions; (2) severe intermittent pain; (3) Bence-Jones protein in the urine. It is essentially a disease of adult life, occurring most frequently after the age of forty. The duration of the reported cases is from one to twelve years. Remission of symptoms is common, but the termination is always fatal.

Pathologically, it is not characterized by a tendency to extend locally nor does it form metastases, although the multiplicity of lesions makes it appear to do so. It does not invade the lymphatics. The lesions remain confined to the bony system which is often severely damaged by the process. Spontaneous fracture may occur. The pain is neuralgic, intermittent, often agonizing.

The Bence-Jones protein occurs in 80 per cent of the cases and in larger quantities than in any other disease. The micropathology is very confusing and has led to a multiplicity of names and to a reclassification of cases. The following is a partial list: Myeloma multiplex (Rustizky), sarcoma multiplex ossium (Buch), pseudoleucemia myelogenes (Runeberg), osteosis sarcomatosa (Hammer), endothelioma intravascular (Markwald), lymphosarcoma multiplex ossium (Weiland), myelosarcoma (Schmaus), lymphadenia ossium (Nothnagel), erythroblastoma (Ribbert), plasmoma malignum (Hoffman). The etiology is shrouded in obscurity. The prognosis is fatal and treatment is only palliative.

This brief statement epitomizes the clinical aspects of the disease. Almost every report in recent literature gives more or less fully the history and the pathology of multiple myeloma, so it seems needless to review it here. Probably the best review of the condition thus far written is that of Ewing in his book on "Neoplastic Diseases." His bibliography seems very complete. Joseph Rosenbloom, in Barker's "Endocrinology and Metabolism," reviews the chemistry of the Bence-Jones protein and states fully the many and varied opinions as to its origin. *I have been unable to find the report of a case in a child.*

My case is presented before this body because the disease is sufficiently rare to warrant making it a matter of record in medical annals, and also that you may profit by the mistakes in diagnosis that have been made. While the mistakes may not influence the course of the disease, the avoidance of them may obviate embarrassment to the practitioner, unnecessary treatment of the patient, and lead to an early, correct diagnosis. The lesions nearly always start in the vertebra and are diagnosed as Potts' disease. Multiple myeloma is seldom considered when back cases are being examined.

Fig. 1. Showing patient at age of 18 months. (Note the heightening of right eyebrow, not noticed at that time.)
Fig. 2. Same patient as in Figure 1, at 6 years of age, showing myelomatous lesion of the right orbit, which had evidently begun at 18 months.

My little patient has been under observation four and one-half years, the first two years of which were hampered by frank errors in diagnosis, causing waste of opportunity in röentgenographic and laboratory study. Many of the radiographs recording the earlier lesions are not suitable for lantern slide reproduction, and the blood and urine chemistry was neglected. The earliest radiographic study was made on account of gastro-intestinal symptoms, which were at the time the only symptoms observed. The next examination by myself and consultants, resulted in a diagnosis of tuberculous spine; and the third was made by another group who concurred in this diagnosis. This is the usual error in both hospital and private practice. The blood picture has been that of a moderate secondary anaemia, but no search was made for

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Bence-Jones protein. The presence of myelocytes was not reported. The urine was reported negative until the Bence-Jones protein was looked for, but it has always been present when proper tests were made, with the exception of the last test.

A section was removed from one lesion in July, 1922, and submitted to Dr. E. A. Codman's commission on bone tumors, on which a preliminary report has been made. It has been examined by six of the leading pathologists of the country with four different opinions, two of the pathologists declining to give an opinion. F. C. Wood, of New York, said it was myeloma. Notwithstanding these diverse opinions, the case has run true to the clinical pictures of multiple myeloma, with the one exception of age, and is before you for discussion as to this particular.

Fig. 3. Showing destruction of second lumbar vertebra, the first lesion discovered. (Diagnosed Pott's Disease at that time.)

The x-ray treatment has produced gratifying results in healing the lesions and relieving pain, but has not stopped new lesions from appearing.

CASE REPORT.

E. W., aged six years, is the first and only child of young, healthy parents. She was a normal, healthy infant, artificially fed after the first two months. Her birth weight was 8 pounds. She had had no sickness prior to the present illness, which began to develop at the age of 18 months.

First Year, 1921.—In January, she developed an obstinate constipation which yielded indifferently to a dietetic regimen. She was rather more fretful than usual. After about seven months she began suffering from severe intermittent pains, which she referred to the umbilicus. These pains occurred at night, were agonizing in character, and lasted at first about half an hour. The child would ask to have its back rubbed, and the rubbing would seem to give some relief. The attacks of pain grew gradually worse, became more frequent, and lasted longer. The abdomen was distended and tense, and constipation obstinate. She was hospitalized twice for observation, but the hospital records do not show a definite diagnosis. Enforced rest in the hospital gave temporary relief from pain. The x-ray report at this time showed a spasticity of the colon. A subsequent study of an x-ray taken for a gastro-intestinal survey, shows a lesion of the second lumbar vertebra. In the latter part of this year, the mother noticed that the child complained of being tired, and manifested an aversion to standing or stooping. The intermittent pains were relieved to some extent by benzyl succinate.

The child came under my observation in December, and a physical examination at that time showed positive symptoms of beginning Pott's disease and a small kyphos in the upper lumbar region, which was slightly tender. Radiographic pictures at this time showed a collapse of the second lumbar vertebra and a diagnosis of tuberculous spine was made. This diagnosis was confirmed by consultants, and the child was placed in a plaster cast, with complete relief from pain.

Second Year, 1922.—In the early part of this year, the patient had a severe attack of influenza with pneumonia. During this time she also developed a soft, painful swelling at the back of the head, which was at first thought to be a fatty tumor, and later a tuberculous abscess, and a photograph records a slight irregularity of the right eyebrow, which was overlooked at the time. In April, the patient was admitted to the children's service of the John Sealy Hospital, where an x-ray study was again made and our diagnosis of tuberculous spine was confirmed. The lesions of the occiput and over the right eye became serious complications, and in July the occiput was incised for diagnostic purposes. The lesion was found to involve the bone and a diagnosis of multiple myeloid sarcoma was made from the microscopic sections.

Fig. 4. Showing lesions of the occiput, and of left parietal and right frontal bones, being the second, third and fourth lesions, respectively.

The child was soon returned to its mother with an early fatal prognosis. Both lesions broke down while we were waiting for a fatal termination, and became so offensive that x-ray treatment was resorted to, with the hope of relieving this condition, at least temporarily. The result was a rapid and complete healing of the lesions and a general improvement.

During the latter months of 1922, two new lesions were observed, involving the sixth rib on the left side, and a little later, the left parietal bone. The characteristic intermittent pain led to an early discovery of the lesions, which both yielded to x-ray treatments.

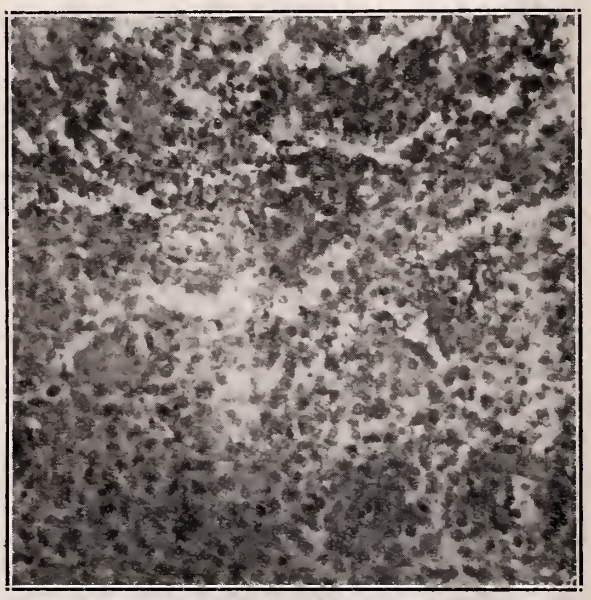

Fig. 5. Microscopic (high power) section of the occipital lesion, shown in Figure 4.

Third Year, 1923.—In July of this year, she began to complain, at times, of indefinite pain in the right hip, and an x-ray picture showed a new lesion at the upper end of the right femur. On September 14, she caught her foot in the wheel of her little go-cart and fractured the bone through the lesion. She was placed in a hip and body cast for 15 weeks and given x-ray treatments. The lesion healed slowly. Later, a hip splint was attached to her body brace and she went about on crutches.

Fourth Year, 1924.—She spent the first half of this year in a hospital, and the records show that she ran a temperature of from 98° to 102° F. all the time. In March, she had a severe attack of measles. The infection caused an ectropion of the right eye, which had been doubtless sensitized by the x-ray treatment. The blood picture was that of a secondary anemia. The urine was negative except for the Bence-Jones protein which was present at each examination. During the latter part of this year, the child was well. She discarded her crutches and brace, and has had no treatment since February. She has grown and developed as a normal child, her height being 43 inches and her weight 37 pounds.

Fifth Year, 1925.—The disease was in apparent arrest for one year, but in February she began having intermittent pain in the right cheek. The radiograph did not show any lesion, but two x-ray treatments stopped the pain. This lesion is thought to be in the zygomatic arch, which is not ossified, and therefore would not show in a picture.

In giving the x-ray treatment, our chief concern was to give a dose large enough to produce healing of the lesions without injury to the patient. The treatments of the skull in the hair areas caused temporary epilation. The treatments of the back produced an erythema; other areas were not affected. The frontal lesion was most resistant to treatment, it receiving more than twice the dosage of any other lesion. In this lesion the roof of the orbital fossa as well as both outer and inner tables of the supra-orbital ridge were involved and the frontal sinus was infected. The child received in all about forty treatments, ranging from one quarter to two and one-half skin units filtered with 4 mm. of aluminum.

Multiple myeloma is a difficult disease in which to make an antemortem diagnosis. It is only after the appearance of several lesions that the disease is suspected. When the first lesion appears in the spine, tuberculosis is the most frequent diagnosis. Bence-Jones proteuria occurs in about 80 per cent of the cases, but it is not constantly present and should be frequently searched for. The presence of myelocytes in the blood is an important diagnostic sign. They are found, however, in any disease process involving the bone marrow.

This report is incomplete for obvious reasons, but it is presented with the hope that it may help others to an earlier correct diagnosis of their cases.

In conclusion, I wish to acknowledge my hearty appreciation of the interest shown by my colleagues, and to especially thank the Terrell Laboratory workers of Fort Worth, for their patient study of the blood and urine and the radiographic work; Dr. C. F. Clayton of Fort Worth, for his orthopedic appliances, and Dr. Violet Keiller of Galveston, for so generously furnishing the interesting pathological report and the lantern slides.

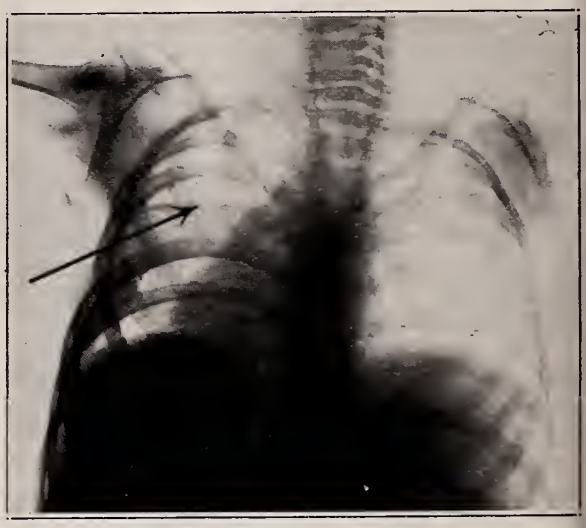

Fig. 6. Note the marked destruction of the sixth left rib.

ABSTRACT OF DISCUSSION.

Dr. O. L. Norsworthy, Houston: Dr. Gilmore's introductory remarks in presenting his most unusual case were brief but full and compact. His experience with this case and his complete report of it to this Section is well worth while. So far as I know, it is the first case of multiple myeloma or of Bence-Jones proteinuria reported to the State Medical Association of Texas. I feel greatly benefitted and thank Dr. Gilmore for the report.

Pitfalls surrounding diagnosis of multiple myeloma are numerous and alluring, and judging from the reports of cases in medical literature the pitfalls seem to be more popular than the road to correct diagnosis in earlier stages of the disease. Bence-Jones reported his first case, with the very peculiar findings in the urine, in 1847, and diagnosed the condition as osteomalacia. Another case was reported in 1886, by Kuhne, with the same peculiar urine findings and was diagnosed as osteomalacia. In 1889, a third case with the same urine findings was reported by Kahler and diagnosed osteomalacia, but at autopsy it was diagnosed multiple round cell sarcoma.

Bence-Jones proteinuria was thought to be present only in multiple myeloma until about 1889. Cases have been reported in later years of its presence in other conditions. Ellimger reported a case that presented gall-bladder symptoms, with jaundice, chills and fever for six weeks, marked progressive secondary anemia, and the presence of Bence-Jones proteinuria, but no symptoms referable to bone lesions. Walters reported three cases with positive Bence-Jones proteinuria at the Mayo Clinic. One of these cases presented symptoms of gall-bladder disease, but the operation revealed no pathology and no definite diagnosis was made. One case proved to be carcinomatosis of the ribs and sternum, the third was multiple myeloma.

The etiology of multiple myeloma is as obscure as the diagnosis and treatment. Cases are reported as following trauma, typhoid fever and sepsis. Ewing suggests a possible relation of multiple myeloma to endothelioma of bone, but does not state that they are related. Pathologists have definitely decided that multiple myeloma differs histologically, pathologically and clinically, from sarcoma.

Blood analyses show a marked secondary anemia in some cases and in others there is no definable evidence of bone tumors. Blood studies will likely be the source of diagnosis, and this again places the responsibility on the pathologist. The presence of myelocytes in the blood is an important factor, though this may be found in many other bone conditions.

Bland Sutton, in his text-book, and other older authors, write much of myeloma of bone and describe it as a single encapsulated tumor, and state that it will not recur after removal and that the patient will get well. They reverse the order of bone involvement. The long bones are most frequently involved and the vertebrae seldom diseased. It is a disease of youth and is seldom found in a person over 25 years of age. I make this reference, however, believing that the myeloma of bone described by the older authors was in all probability endothelioma.

FIGS. 7, 8 and 9. Showing myelomatous lesions of left femoral head and neck, after fracture through the necrosed bone, with three different stages of repair.

FIG. 10. Showing small amount of deformity of back, leg and occiput, after healing of these respective lesions.

Hamberger speaks of three types of multiple myeloma; first, multiple myeloma mistaken for osteomalacia; second, multiple myeloma with pathological fractures; and third, multiple myeloma with vague bone symptoms, the diagnosis being made at

necropsy. A larger number of cases for study is essential to an early diagnosis and effective treatment.

Dr. Chas. F. Clayton, Fort Worth: I wish to commend Dr. Gilmore for his thoroughness in working up this case. I have myself been interested in this particular case, though Dr. Gilmore deserves the credit for the manner in which it has been developed. I do not censor myself for my own mistake in diagnosis of bone tumors. Until the pathologists find a common language of expression, and themselves reach some unanimity of opinion, clinicians can hardly be expected to correctly diagnose these cases. Sarcoma cannot be differentiated radiographically from myeloma of the vertebrae.

Dr. Gilmore (closing): In retrospection, our early diagnosis was faulty. It is obvious that a more careful study of the spinal lesion would have made one hesitate in making a diagnosis of tuberculosis, despite the fact that tuberculosis is the most common spinal lesion in children. The varied pathological reports emphasize the difficulty in diagnosing bone lesions. *X*-ray is the rational treatment and the only one that will relieve symptoms. A prognosis as to duration should be reserved; an ultimate fatal termination is to be expected.

IDIOPATHIC ATONY OF THE BLADDER.*

BY

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FORT WORTH TEXAS.

So-called idiopathic atony of the bladder is a condition one rarely encounters or sees mentioned in the literature, but it should be recognized and differentiated from other forms of urinary retention; also the term idiopathic is not often used, because the majority of conditions can be attributed to some specific cause. I am using it because I have no other explanation of this peculiar condition.

There are several forms of bladder atony, such as those following operations, prostatic hypertrophy, strictures, urethral valves, etc., but the form I wish to call to your attention is a much less common condition with dribbling, retention, and varying amounts of residual urine, without any form of mechanical obstruction or spinal cord lesion. In 1910, Walker[1] reported twelve cases which formed for him an unsolved problem, but he suggested that the condition might be due to a lesion in the hypogastric or hemorrhoidal plexus. This might be the explanation of the condition in my patient, but it could not be proven. He had a hemorrhoidectomy about two years before I saw him and subsequently a growth removed from his rectum. This explanation does not seem plausible in my patient, because the retention and dribbling came on gradually several months after the operation.

The late Dr. Geraghty had eight or ten cases during his practice that he never reported, four of which correspond to the nine cases of familial bladder atony reported by Gundrum,[9] in 1922. I assisted Dr. Geraghty in a cystostomy on one of his cases, to see if there could be found any form of obstruction at the prostatic orifice. Nothing was found. The following is a quotation from his letter concerning my patient:

"The history of the case is most interesting; we have had about eight or ten cases in which no discoverable cause for residual urine and obstruction could be determined. Several of them had prostatectomies, in others the internal sphincter was divided, but never with the slightest benefit from any procedure which was carried out. I believe that these cases represent an atony of the bladder musculature, the result of a peripheral neuritis, as in these cases a spinal cord test and fluid is always negative. There seems to be no explanation of the condition. One case came into the hospital some years ago and died in uremia shortly after his admission. A complete autopsy was obtained and sections of the spinal cord showed it to be entirely negative. This side of the case was very carefully worked out. The spinal nerves, however, were not studied. It is interesting to note that the brother of this case, some years later, developed a similar condition. We have had one other case of where two brothers also had this condition. There is nothing further I can tell you about these cases, except that, in each instance, there has been obstruction with negative mechanical findings and no spinal cord disease."

As cited by Bransford Lewis[2] there are two theories of the etiology of the condition: (1) the theory of Guyon, who believed there is a degenerative (arteriosclerotic) process of the bladder wall, prostate and kidneys; (2) the vesical degenerative theory of Ciechanowsky, Halle, Motz, and Zukerkandl. The personal view of Lewis is that there are only two causes (mechanical obstruction and nervous influence interference with the nervous mechanism controlling urination). He believes that in the absence of the nervous factor the nature of the obstruction is simply not recognized in such cases; that the passage of sounds, rectal examination, and cystoscopic views of the vesical neck are not sufficient to exclude mechanical obstruction. He illustrates this by the report of three cases, two of which were 29 and 39 years of age, respectively, with congenital stricture of the vesical orifice. The third case was one of contracture of the vesical neck, following prostatic abscess.

In his six other cases the condition was

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*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 7, 1925.

1. Walker, Thompson: "Atony of the Bladder Without Obstruction, or Signs of Organic Disease," Ann. Surg., November, 1910.

9. Gundrum: "Familial Bladder Atony," Jour. A. M. A., February 11, 1922, Vol. lxxviii, p. 411.

2. Lewis, Bransford: "Studies in Obscure Forms of Prostatic Obstruction and Vesical Atony," Ann. Surg., Vol. lxi, No. 3, p. 257.

due to syphilis. In conclusion, he says that there is no such thing as unaccountable or incurable atony or urinary retention except when it is caused by some nerve degenerative process that precludes restoration of the expulsive power, and it is unjustifiable in the most of these cases. Braasch thinks that it is more logical to assume that the condition is caused by a disturbance of the ganglia surrounding the vesical neck.

In 1911, Ware[3] reported two cases of non-prostatic retention of urine in senile patients.[10] His explanation of the condition was the same as that of Ciechanowsky[5] who, by his anatomical studies in 1901, showed that from the ages of 40 to 50 the muscle constituted nearly three-fourths of the bladder wall, whereas in the aged it was hardly half. This view is also held by Zukerkandl,[6] Albarran,[7] and Gouley.[8]

Bard's theory[4] is entirely different. He insists that idiopathic and progressive dilatation of an organ is essentially the same process wherever it occurs. He has published studies affecting the glandular organs, the alimentary canal, the eyeball, etc. This idiopathic condition, he states, is distinguished by its congenital origin, its development without apparent cause, the long tolerance, and the progressive evolution. Sometimes it involves the bladder, ureter and kidneys. He reports three such cases in which there was nothing to suggest bladder or prostate trouble otherwise. He claims that this condition will cause uremia just as retention from stricture or prostatic trouble. He further claims that infantile glaucoma is a manifestation of this condition. I have seen nothing in the literature to support his views.

CASE REPORT.

Case No. 1.—A man, age 55, came to the Fort Worth Clinic, March 3, 1924, complaining of heart and bladder trouble.

HISTORY.

The cause of his father's death is unknown; his mother died from heart trouble and one sister died from tuberculosis. He had the following illnesses: "Yellow jaundice" thirty years ago; typhoid fever 24 years ago; influenza 6 years ago; a hemorrhoidectomy 2 years ago, and subsequently, a growth removed from the rectum. He had been treated by his family doctor for heart trouble for several years. He had suffered from frequent urination for 15 or 20 years, which had been worse the last 4 or 5 years. There was no history of hematuria or calculi, and he denied all venereal disease. For the past few months he had lost a great deal of weight and strength; he did not know how much.

PRESENT ILLNESS.

The bladder trouble had been getting very severe for the last year, he having lost control of his urine, and having dysuria, a small stream with very little force. The urine began to dribble one year ago, and at the time of examination he had incontinence continually. Three months ago, he was seized with a severe headache and fainted, and he has been in bed most of the time since then. He has been taking strychnine and digitalis for his heart trouble.

PHYSICAL EXAMINATION.

The patient had a good color and was fairly well nourished. His pupils were equal and reacted to light and accommodation. All reflexes were normal and there were no areas of anesthesia, hyperesthesia nor any other abnormal sensations. No masses or tenderness about the kidney regions was found and the external genitalia were negative. The prostate was of normal size, smooth and elastic, with no induration. There was some scar tissue in the rectal wall about the region of prostate. The anal sphincter was perfectly relaxed and dilated.

A cystoscopic examination was made on March 6, 1924. The cystoscope entered easily. There was 400 cc. of residual urine. The bladder mucosa was congested, but with no trabeculation, the bladder wall appeared perfectly smooth and flabby. There were no stones or tumors. The landmarks of the trigone were absent. The ureteral meati were visible and there was no deformity nor dilatation of the prostatic orifice, and no evidence of intravesical enlargement of the prostate.

With a finger in the rectum and the cystoscope in the urethra, the beak and shaft of the instrument were *easily felt*, and the prostate felt *thin*, soft, smooth and of normal size.

The laboratory findings were as follows: The urine showed a specific gravity of 1005, was acid, with a trace of albumin and no casts, no red or white blood cells. The blood showed: 4,040,000 erythrocytes, 6600 leucocytes, and hemoglobin 80 per cent. The differential count was: Polymorphonuclears 80 per cent, small lymphocytes 18 per cent, large lymphocytes 1 per cent, and transitionals 1 per cent. The blood and spinal fluid Wassermann's were negative.

It is very interesting to note that this patient died of angina pectoris in the hospital, about two weeks after the above examination. An autopsy was not obtained.

In conclusion, I wish to say that these patients have real retention and high residual urine without any mechanical obstruction. The immediate cause is certainly a lack of force in the detrusor muscles or a disturbance in the coördination between these and the sphincter muscles. The underlying cause of this condition is still disputed and many patients will suffer from useless operations and other forms of treatment, until doctors become better acquainted with this condition and the real cause is determined.

3. Ware, M. W.: "Non-prostatic Retention of Urine in the Senile Bladder," Ann. Surg., January, 1911.

4. Bard, L.: "Idiopathic Dilatation of Bladder or Other Urinary Organs," Annals de Medicine, Paris, November, December, 1916, Vol. iii, No. 6, p. 567.

5. Ciechaniwsky: "Quelques Apercus sur le Prostatisme, etc.," Ann. de Med. Org. Genit., 1901, p. 536.

6. Zuckerkandl: Handbuch d. Urologie, 1904, Vol. i, p. 720.

7. Albarran: "Retention D'Urine sans Obstacle Mechanique," Premier Congress International d' Urologie, 1908, p. 299.

8. Gouley: Surg. of Genito-Urinary Organs, Rebman, 1907, p. 426.

10. Rivillet: "Paralysis of the Bladder and Sudden Death in Pneumonia," Revue de Medecine, Paris. April. Vol. xxxiii, No. 4, p. 251.

FACTORS ESSENTIAL TO GOOD END-RESULTS IN GASTRIC SURGERY.*

BY

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Many of the good results in surgery are dependent upon careful attention to what, upon first consideration, are apparently minor and unimportant details. This attention to detail is particularly necessary to obtain good end-results in gastric surgery, and I am, therefore, going to discuss some of the things pertaining to the surgical treatment of lesions of the stomach and duodenum, which, although seemingly unimportant, are nevertheless vital.

The first fact that I would emphasize is that there must be a definite indication for surgery. Only a small number of patients with stomach symptoms are in need of gastric surgery. During the past seven years, 5,816 of the patients admitted to our clinic gave such histories of gastric complaints that a careful *x*-ray study and investigation of the gastro-intestinal tract was made. Organic pathology of the stomach or duodenum was diagnosed by the *x*-ray and clinical departments in 659 of these patients. From this, we would conclude that 88.5 per cent of the patients with gastric complaints have no organic lesion of the stomach, but their symptoms are of a reflex nature, and are due to extra-gastric pathology, to functional or organic nervous conditions, to improper habits of living, and to motor or secretory disturbances of the stomach.

Care should be used in the interpretation of the reflex symptoms, so that they may not be ascribed to the stomach, and unnecessary surgery performed. The symptoms due to secretory and motor dysfunctions will frequently simulate ulcer closely, and if these complaints are of long duration and medical management has failed, the temptation is to resort to surgery. Gastric stasis due to lack of muscle power is a condition to be treated medically, and is aggravated rather than improved by surgery. Patients with persistent stomach symptoms due to organic or functional nervous conditions are frequently seen, and unquestionably should be given medical treatment. I believe that gastric surgery is occasionally performed when the symptoms are due to one or more of the above conditions; such surgery lowers the percentage of good end-results. It should also be remembered that surgery is not indicated even for the treatment of many of the patients with organic lesions. The treatment of simple peptic ulcer is primarily medical, but recrudescence, chronicity and complications are the conditions calling for surgery. Believing that proper medical management will do much for many of these patients, we have resorted to operative measures in the treatment of only about one-third of the cases of peptic ulcer seen in our clinic. Surgery will usually give a disappointing end-result unless the gastric lesion is the chief pathology. The patient may have an ulcer, but in addition he may have tuberculosis, syphilis, or a lesion of the nervous or circulatory system which is the disease of first importance. For such patients, surgery should usually not be advised.

The next essential factor is the preoperative preparation of the patient. This calls for a period of time of from a few days to a week or more in the hospital on preliminary treatment. During this time the patient is given a modified diet for ulcer, an endeavor being made to give a liberal quantity of fluids and easily assimilated foods. Attention is given to mouth hygiene and to respiratory infections. It is particularly important that gastric operations be avoided during acute infections of the upper air passages. Hot stupes and lavages are valuable aids, especially in the treatment of patients with stenosis and stasis. Proper preliminary management will do much to clear up the inflammatory swelling and edema and will very definitely diminish the stasis, permitting the patient to take a more liberal quantity of fluids and foods. Our *x*-ray study in a large number of cases with stasis confirms this finding of marked improvement in the emptying time. Due to such management, there will be less evidence of acute inflammation at the time of operation, and therefore, less danger of local infection of the peritoneum or the abdominal wall; the stomach can be sutured more satisfactorily, and the possibility of respiratory complications will be diminished.

A special effort is made to teach all these patients to take lavages easily before operation, so that, should the occasion arise after operation, a lavage can be readily given. These few preliminary days in the hospital will also do much to prepare the mental and nervous state of the patient for surgery. An acute gastric hemorrhage seldom demands immediate surgery; it has been more than 14 years since we have operated upon a patient to control the acute bleeding of a peptic ulcer. The preoperative treatment in these cases materially affects the end-results. Such cases are given morphin, ergotol, serums, and fluids by hypodermoclysis and per rectum. Ice is applied to the epigastrium, and heat to other parts of the body. After the bleeding

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 6, 1925.

has been controlled, if the anemia is marked, a blood transfusion is given.

Another essential factor for consideration is the selection of the operation which will in all probability correct the existing pathology. Ulcers of the stomach and duodenum present many different clinical pictures and hence their treatment demands different operative procedures. There is the acute ulcer with little induration but extensive adjacent inflammation, and the chronic ulcer with marked induration and scar tissue deformity, with resulting stenosis. There is the acute perforated ulcer with diffuse peritonitis and the chronic perforated ulcer with the stomach adherent to an adjacent organ, or with a localized abscess. The gastric ulcer, with its deeper penetration into the muscular layers, indurated edges, and liability to cancer, is a very different pathological lesion from the duodenal ulcer, which is usually shallow and has practically no cancer liability. There is the ulcer with the history of bleeding, and the one without bleeding. Some of the ulcers will be accompanied by a hypersecretion, others with a hyposecretion. Some ulcers occur in stomachs with normal drainage, while others are found in which there is marked gastric stasis. Some of the patients with ulcer will be in very good condition for operation, while others will be quite emaciated and will have but little resistance. Remembering the various pictures which ulcers present, it does not seem probable that one or two operative procedures will meet all the indications, so the surgeon should be familiar with and perform that operation which experience has shown will most probably cure the existing lesion. As a rule, gastric ulcers should be treated by a local incision, a resection of the stomach, or a pylorectomy, accompanied by some type of gastro-enterostomy.

The small pyloric or duodenal ulcer, unaccompanied by adhesions, may be treated satisfactorily by an excision and pyloroplasty. The large, active, bleeding duodenal ulcer may be cauterized and a gastro-enterostomy performed. The chronic ulcer of the duodenum with extensive scar tissue formation, with resulting stenosis and stasis, and without the history of bleeding, is best treated by a gastro-enterostomy alone. Is it not agreed that the celerity with which attention is given to the acute perforating ulcer after perforation is the most essential factor? However, unless the patient is in marked shock or profoundly depressed by the infection, after the ulcer is sutured, a gastro-enterostomy should be performed. Occasionally in perforated pyloric and duodenal ulcers, the margins of the ulcer may be excised, a closure made, and good continuity reëstablished by a pyloroplasty. In the treatment of cancer, it is, of course, understood that a wide resection gives the only probability of cure. Even as a palliative measure, a resection should be performed, because a gastro-enterostomy in cancer gives but little relief. Remembering the different clinical pictures that the organic lesions of the stomach present, I would emphasize the point that the type of operation performed will be an essential factor in the end-result.

Attention to minute details of technic is another essential factor in producing good end-results. In gastro-enterostomies, better drainage is obtained by placing the anastomosis so that it is at the most dependent portion of the stomach, with the opening extending to or slightly beyond the greater curvature. This fact has been confirmed by *x*-ray observations in a number of cases. The no-loop anastomosis is a misnomer. The length of the proximal jejunal loop is very important, and I believe this loop is more frequently made too short than too long. The part of the jejunum to be selected should be determined by the size, the shape, and the position of the stomach. As a precaution against bleeding, all large vessels of the stomach, approaching the line of anastomosis, should be ligated with interrupted catgut sutures; and, to be doubly sure, it is our custom to ligate all visible vessels in the line of the anastomosis again with interrupted sutures. This procedure not only removes the danger of hemorrhage, but there is less vomiting, for blood in the stomach will produce nausea and vomiting. The making of a large stoma, the careful protection of the field from soiling, the application of clamps loosely (when used), the use of absorbable suture, the careful approximation of mucous membrane to mucous membrane, the making of an ample opening in the mesocolon, the suturing of this opening a centimeter or more on the stomach above the anastomosis, the gentle handling of the tissues, and the changing of gloves and instruments after completing the gastric suturing, are all additional factors in the technic which will influence the final result. The respiratory complications, which account for a number of the fatalities following gastric surgery, can be largely avoided by proper preoperative preparation and the use of ethylene-oxygen anesthesia, reinforced by field block, or by regional anesthesia, and reinforced, when necessary, by a first stage ethylene narcosis. The kind of anesthesia used, particularly for the emaciated patient with lowered resistance, may be a vital factor.

The consideration given to associated pathology will be another factor influencing the end-result. A number of the patients with

ulcer will also have either a disease of the gall-bladder, the appendix, the kidney, or some pelvic pathology. These associated lesions can frequently be given surgical attention without materially adding to the gravity of the operation. Erdmann[1] finds it advisable to remove the gall-bladder in approximately 50 per cent of his ulcer cases. Failure to give consideration to such associated pathology, either primarily or by performing a second operation, is a factor which contributes to the bad end-results.

One other essential factor is the immediate postoperative care and subsequent advice to be given to the patient. These patients should have close observation for a few days so that, should complications arise, they may be recognized early and promptly corrected. Should there be much nausea or vomiting, a hot lavage is indicated, and should the vomiting persist longer than 24 hours, intervention may be indicated, and if given early, may prevent a fatality.

Even after convalescence, an endeavor should be made to regulate the patient's habits of living for a time, though not to the extent of causing him to regard himself as sick, but simply to correct the things which probably served as etiological factors in the production of this pathology. Restriction in responsibility and the elimination of sources of worry should be secured, particularly for the nervous patient. Such conditions as focal infections, visceroptosis, colonic stasis, or colitis, must receive proper consideration and treatment, and proper advice given concerning the diet, but care must be taken not to make this diet too restricted. Alkalies are given by mouth, for a few weeks, to those patients who had hyperchlorhydria. A small number of the patients will continue to have symptoms, and such patients should for a time be placed on careful medical management and treatment for ulcer, just as though they had not been operated upon. By doing this, an additional number can be classed with those receiving a good end-result. A small percentage of the patients will have a recurrence of the ulcer, or will develop a jejunal ulcer. Medical treatment will seldom cure these ulcers, but surgical measures will frequently relieve the condition and add to the percentage of ultimate good results.

CONCLUSIONS.

1. There shall be a definite indication for surgery.
2. Preoperative preparation should include preparing the mind and nerves of the patient, as well as his body, for operation.
3. Discrimination in the selection of the type and character of surgery raises the percentage of good end-results.
4. Give attention to minute details of technic.
5. Associated pathology may be corrected surgically.
6. The immediate postoperative care and subsequent advice should have due consideration.

ABSTRACT OF DISCUSSION.

Dr. Geo. M. Underwood, Dallas: I desire to call your attention to the value of medical treatment in ulcer, before these patients are treated surgically. Is it too much to expect the surgeon to be reasonably familiar with medical treatment and what it offers the patient? I do not think that it is. Moynihan declares that "perfunctory medical treatment" is responsible for many cases of peptic ulcer coming to surgical treatment. That, of course, is a very trite expression, but it is easily remembered and it means a great deal. The Sippy treatment applied systematically and energetically for one year, more or less (of course, according to clinical indications) will produce amazing results in ulcers not already obstructive. We medical men hope that our surgical confreres will seize upon this opportunity of dealing so successfully with this class of patients. At our own clinic, gastric surgery has been reduced to about one-fourth its former incidence by standardized medical methods.

It should be borne in mind that the old theory of acid control of the pyloric opening and closure is probably entirely incorrect. This can be easily demonstrated by giving a patient barium under the *x*-ray and observing that it begins entering the duodenum immediately, or that water, in the presence of food, enters the duodenum almost instantly, and moreover that patients with complete achylia frequently have no gastric residue at the end of from 4 to 6 hours. Some of us possibly overlook the fact that the pylorus is under certain nervous influence and that the acidity, or damage from acidity, is due to an improperly functioning gastroduodenal neuromechanism. Therefore, gastric surgery must not only provide a very complete discharge of the gastric contents, it must also provide for adequate regurgitation of the alkaline duodenal contents. Nor do I mean to say that this is purely a question of mechanics; it has been clearly demonstrated that the resection of the distal portion of the stomach, or even the division of certain nerve fibers to the prepyloric area of the stomach, may result in a marked reduction of hydrochloric acid secretion; in certain cases by a complete anacidity. This very fact may explain why some men (Balfour, for instance), have come to recommend partial gastrectomy for gastrojejunal ulcer. I feel that great progress is being made in this field.

You are aware of the wonderful relief given small obstructive duodenal ulcers by gastroenterostomy. However, the tendency of late is to do more than a simple gastroenterostomy, and especially is this true for gastric ulcers. Gastrectomy or partial gastrectomy in the hands of experienced men seems now to be giving results little short of marvelous.

Dr. J. W. Burns, Cuero: Following perforation of a duodenal or gastric ulcer, many of these patients suffer from the most profound shock. Only about 10 per cent of the patients upon whom we have performed a gastroenterostomy have had any trouble later. Much depends upon the mechanics of the operation. I have never been able to hospitalize

1. Erdmann, John F.: Annals of Surgery, March, 1925.

these patients for three weeks before operation; such preliminary treatment would be ideal.

Dr. Hugh Crouse, El Paso: Surgeons only too frequently forget the differential diagnosis between pyloric and duodenal pathological states. This differentiation can be made by feeding a barium meal through the duodenal tube and then *x*-raying the duodenum.

Preceding the passage of the barium meal, the contents of the duodenum can be taken for laboratory investigations and cultures. Then the correlation of the history, laboratory investigation and skiagraph of the barium outline of the duodenum will differentiate these two pathological conditions in a clear and definite manner.

In our work, we attempt to commence preoperative care three weeks before operation. In my opinion, approximately 85 per cent of gastric and duodenal ulcerative cases are medical, and 15 per cent surgical. One of the postoperative mishaps is the development of hemorrhage, due to inadequate hemostasis at the time that approximation is made of the anastomosis between stomach and bowel. Postoperative hemorrhage of this nature can be prevented by the use of the dull cherry red cautery blade or the radium knife, in incising the gastric and intestinal mucosa.

I wish to suggest to you the use of half a dram of thromboplastin on a teaspoonful of cracked ice, every hour commencing from 3 to 4 hours after the operation, or as early as recovery from anesthesia will permit. Alkalinizing the patient is essential. This can be accomplished by giving three pints of deci-normal salt solution containing five per cent sodium bicarbonate and dextrose, by protoclysis, during the first forty to sixty minutes. One should not be in too great a hurry about feeding these cases postoperatively.

Dr. A. O. Singleton, Galveston: I think surgeons are very glad to welcome internists in the treatment of gastric conditions, especially in cases of ulcer. All cases were formerly considered surgical with the result that there were many failures. Now we have definite indications for surgical intervention. In emergencies, the surgeon does good work and gets good results; in questionable cases his results are not so good. A gastroenterostomy does good if it helps to drain the stomach, or when there is pyloric obstruction. If the stomach is draining well already, then a gastroenterostomy does harm. We should first try to establish function in other ways if possible. Horsley's and Finney's pyloroplasties give promise of being very useful, and where possible should be substituted for gastroenterostomy.

Dr. Brindley (closing): One important point that was made is that the treatment of gastric lesions is on a much safer and saner basis than ever before, because of the coöperation between the surgeon and the internist. A proper lavage each evening while on preoperative preparation is of value. A detailed history and a careful examination are essential. The aid of a competent röentgenologist in the examination is particularly necessary.

Typho-Serobacterin-Mulford Mixed (New and Nonofficial Remedies, 1925, p. 369).—This is also marketed in packages of three hypo-units containing consecutive doses of a mixture of killed sensitized typhoid bacilli, killed sensitized paratyphoid bacilli A and killed sensitized paratyphoid bacilli B; of thirty 1 cc. vials, being ten tests of three doses of a mixture of the three bacilli. H. K. Mulford Co., Philadelphia.—*Jour. A. M. A.*, Sept. 19, 1925.

PERFORATING DUODENAL ULCER.*

BY

JOHN W. BURNS, M. D.,
CUERO, TEXAS.

Perforation or rupture of any abdominal viscus is always a serious incident; a more serious accident could not befall a patient. The doctor is immediately confronted by a condition which may not only challenge his diagnostic skill and ability, but the life of the patient is dependent upon the promptness of his decision to recommend surgical intervention.

A perforation of a duodenal ulcer forms no exception to that of gastric ulcer, rupture of the gall-bladder, perforation of the small intestines, or of any other abdominal organ, whether such perforation be due to traumatism or ulceration.

The surgeon has to do with the perforated ulcer of the duodenum more frequently than with that of any other viscus except that of the appendix. The etiological factors which produce gastric or duodenal ulcers are still a somewhat mooted question. Since the work of Billings and his co-workers upon bacterial focal infection, it is recognized that ulcers are not only produced by trophic disturbances in the mucosa of the stomach or duodenum but that bacteria, streptococci, or staphylococci which have gained entrance into the blood stream from some focus of infection, such as the crypts of the tonsils, pyorrhea of the gums, or disease of some of the nasal sinuses, are really responsible for the ulcers.

According to the statistics of Codman of the Massachusetts General Hospital, a perforation of a duodenal ulcer occurs more frequently in the male than in the female, the proportion being nine to one. In a series of twenty-five cases reported by McCreery operated on in the first surgical section of the Bellevue Hospital between October 1, 1919, and August 1, 1923, only one case occurred in a woman (forty-three years of age) and twenty-four in men. In our limited number of patients with perforation, this incidence was in the proportion of five to one.

The diagnosis of a perforation of the duodenum is not an easy matter. Sometimes it is impossible to differentiate a gastric or duodenal ulcer from that of a ruptured gall-bladder, fat necrosis of the pancreas, or an acute rupture of the appendix. Too much importance cannot be placed upon the previous history. In chronic ulcer of the duodenum there is usually a typical

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 6, 1925.

classical syndrome, consisting of a hunger pain two or three hours after the ingestion of food, sour eructation, burning pain in the epigastrium, night pain, etc.—all of which is modified after the ingestion of food. There may be, however, ulceration and perforation without previous history; such was the case in our first patient, a boy seventeen years of age, who was plowing when he was suddenly seized with such violent pain that he fell in the furrow where he was found an hour or two later.

The immediate symptoms manifested in an acute perforation are the suddenness of the attack of most excruciating pain, faintness, nausea, vomiting, etc. Shock was a pronounced symptom in each of our cases. Manifestly, the severity of the symptoms is greatly dependent upon the size of the lumen of the perforation and the amount of fluid which escapes into the general peritoneal cavity. In the chronic ulcer, when the perforation is small and protected by peritoneal adhesions, there may be very little shock attending the perforation and the patient may recover without surgical intervention.

The ages of my patients operated upon were: seventeen, twenty-six, forty-six, fifty-three, fifty-seven and sixty-four years, respectively. Two of these patients, the boy of 17 and the woman of 26, had never suffered previously with stomach trouble. Two of them, one 46 and the other 57, had had attacks of indigestion and all of the typical symptoms of a duodenal ulcer for several years, but they had never consulted a physician. The man aged 53 was under my observation and treatment (the Sippy treatment) for two weeks, when he sustained a perforation. The one aged 64 had been under my observation and treatment with a diagnosis of a duodenal ulcer two years previously, but thought that he was well.

The perforation occurred in all six of my patients on the anterior surface of the first portion of the duodenum. Our first patient, the boy 17 years of age, was operated within 12 hours after he sustained the perforation; the second, within 6 hours; the third, 36 hours; the fourth, 12, and fifth and sixth within 6 hours of the time of perforation.

Except in the case of the woman, the operation consisted of sewing up the perforation; attaching a small piece of omentum over the obliterated ulcer; making a posterior gastro-enterostomy; and closing the abdomen with drainage. None of the five had any temperature before operation above 100° F. The symptoms in each case were identical; sudden severe pain, shock, and rigid abdomen with a leukocytosis. Peritonitis had not supervened, preoperatively. The woman, aged 26, who was operated upon 36 hours after the perforation, had a marked peritonitis, rapid pulse, distension of the abdomen, vomiting, high fever, with a very pronounced leukocytosis. Her operation consisted of making an incision, sewing up the perforation, cleansing the abdomen as thoroughly as possible with a vacuum sucker and the installation of drainage. A subsequent gastro-enterostomy was done. There was no mortality in this group of patients.

The man, aged 64, died two years subsequent to his operation with apoplexy. The woman, operated so late after the perforation, died 14 months after operation as the result of postoperative adhesions and gangrene of several inches of the ileum. The remainder of these patients are now quite well and comfortable after an interval of from one to two years.

There has been some discussion in the literature within the past few years, as to to the propriety or necessity of doing a gastroenterostomy at the time of the operation for closing the perforated ulcer. I quote extensively from an article published by John A. McCreery, published in the *Annals of Surgery*, January, 1924:

"The proper procedure in the operative treatment of acute perforated ulcer of the stomach and duodenum is still a warmly debated question. Whether or not more should be done than a simple closure is the main point in dispute. The opponents of more radical procedure—usually gastroenterostomy—offer as objections: First, it is unnecessary, perforation curing the ulcer; second, it adds to the mortality; third, there is danger of spreading infection in the peritoneal cavity; fourth, it is not satisfactory in 100 per cent of the cases; fifth, reperforation, hemorrhage, and stenosis are exceptional sequelae; sixth, the danger of subsequent jejunal ulcer. While, in reply, it is urged that: First, operation, alone, does not cure the ulcer in a large number of cases; second; it does not affect the mortality in properly chosen cases; third, the danger of spreading infection is of theoretical rather than practical importance; fourth, while gastroenterostomy is not always successful in relieving symptoms or preventing complications, it is so in such a large percentage of cases that there can be no longer any doubt of its specific effect; fifth, suture always narrows the lumen and the operation safeguards against secondary perforation and subsequent stenosis; sixth, while subsequent jejunal ulcers are a possibility to be recognized, the incidence is extremely low.

"Among the more recently reported series are Gibson's, who, on the basis of 60 cases operated on at the New York Hospital, feels that closure alone is the operation of choice. Yet 7 of his 28 cases of duodenal perforation required secondary operation, though only 1 of 28 recovered gastric cases needed further interference. Pool comes to the conclusion that about one-third of the cases treated by closure alone develop later symptoms—usually pyloric obstruction, but feels that a definitely indicated gastroenterostomy in these cases is better than a possibly unnecessary stoma at the original operation. Southam reports 37 duodenal per-

forations, treated by simple closure, four of which, at second operation, showed chronic ulcer.

"Smith reports 41 duodenal ulcers, with simple closure, and 4 secondary operations. In Brenner's series of 15 cases, all duodenal, 3 of 12 cases treated by closure alone (25 per cent) required further operative treatment. Stewart and Barber report 24 cases from the third division of Bellevue Hospital, in none of which was any operative procedure other than closure necessary.

"On the other hand, Lewisohn, as a result of study of his own cases and of a series of cases requiring secondary operation, feels that gastroenterostomy should be done whenever possible, because of the possibility that the ulcer may persist. Deaver is strongly in favor of immediate gastroenterostomy, feeling that if there is no shock or systemic toxemia, before operation, the mortality is not increased but may, on the contrary, be diminished. Cutler, reviewing a number of recent series, comes to the conclusion that gastroenterostomy is advisable when the patient's condition warrants it.

"Recently, Guthrie summarized the answers to a questionnaire on the subject of perforated duodenal ulcer. Of 150 surgeons replying, gastroenterostomy (occasionally pyloroplasty) was done as a routine by 22; by 64, never, and by 63, in a shifting percentage depending in varying degree on the condition of the patient, the size and duration of the ulcer and the degree of stenosis following closure.

"Lately—chiefly from continental clinics—reports of more radical procedures have been published. Hromada and Newman report 19 resections with 14 recoveries. Paul, from von Haber's clinic, reports 13 resections, with 2 deaths, and considers that follow-up reports show this to be a more satisfactory operation than closure, with or without a gastroenterostomy, avoiding especially the danger of jejunal ulcer. Zoeffel reports 23 cases, with 3 deaths, and a mortality, during the period when resection was the operation of choice, of 21 per cent, as compared with 56 per cent during the preceding 5 years. Noetzel and Brunner condemn this procedure as unnecessary and dangerous. At best it is possible only under unusual circumstances, with patients in good condition and in the hands of the most experienced operators; and in spite of the excellent reported figures, the procedure should not be considered a routine measure.

"With surgical opinion so divided, the report of individual hospital series seems justified, although, as Deaver points out, statistics are confusing, as early operations and skillful closure so shadow all other considerations."

From our personal experience we do not believe that a gastroenterostomy adds to the mortality of the patients who have suffered a perforation. Gastroenterostomy, when properly done, is one of the safest abdominal operations and the mortality is almost nil. It appears to us that it is more rational to do it at the time of closure of the ulcer, than to submit the patient to another operation; on the other hand, we cannot bring ourselves to think that an extensive resection of the stomach is ever indicated for the cure of a simple ulcer, even though it may have perforated.

ABSTRACT OF DISCUSSION.

Dr. K. H. Aynesworth, Waco: Dr. Burns has had an unique experience, with no mortality. I think that his success in these cases is partly due to the fact that he got them early, most of them within 6 hours, the longest being about 36 hours. Most cases that I see are at least 40 hours after perforation or longer. I want to lay stress upon the usual suddenness of onset and the sudden, severe and excruciating pain which is not paroxysmal. There is a stiffening of the abdominal muscles. There is no nausea, no vomiting and morphine does not relieve the pain. Most cases, after 40 hours, are brought in with a diagnosis of acute appendicitis. Some are in such extreme shock that they are unfit for operation.

Dr. O. J. Potthast, San Antonio: I think that the mortality in these cases depends a great deal upon the material in the stomach: what is taken into the stomach, and the material getting into the abdomen.

Dr. E. E. Francis, Memphis, Tennessee: I have seen a large number of cases of perforation of the duodenum. I have a great deal of regard for gastroenterostomies in these cases, after which I think they become strictly gastric cases.

Dr. Frank L. Barnes, Houston: Dr. Burns evidently got his cases early and in good condition for operation. Gastroenterostomy depends upon the condition of the patient and the judgment of the surgeon. In most cases, the abdomen must be drained. The clinical history in the case means a greal deal in diagnosis. The question of acute pancreatitis is easily differentiated. It is difficult, sometimes, to differentiate from appendicitis. We should always examine the pelvis for fluid.

NON-DIABETIC ACIDOSIS.*

BY

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DALLAS, TEXAS.

In order to have a clear conception of the phenomena of acidosis, some knowledge of the acid-base regulatory mechanism of the body is essential. This mechanism depends upon a constant alkalinity of the blood, pulmonary ventilation, and kidney excretion.[1] The blood is alkaline to litmus and has a constant hydrogen ion concentration of pH 7.4. If moderate amounts of acid or base are added, the reaction remains constant. We may think of the blood and tissue juices as a 0.3 per cent sodium bicarbonate solution circulating through the tissues, with sources from which to draw alkali to keep it at a constant level.

This unvarying reaction is due to the so-called "buffer" substances in the fluid and tissues of the body. Sodium phosphate, sodium and potassium carbonates and ammonia are present and have basic properties, but are neutralized by carbon dioxid, uric acid, sodium acid phosphate and sulphuric and phosphoric acid[2].

If more acid is added than is needed to maintain equilibrium, sodium acid phosphate is converted into sodium phosphate, sodium bicarbonate becomes sodium carbon-

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*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 5, 1925.

1. Howell's Physiology, Fourth Edition.
2. Mathew's Physiological Chemistry. Third Edition.

ate, and carbon dioxid is set free and eliminated, or combines with ammonia to form ammonium carbonate and urea. If an excess of alkali occurs, the reverse reaction takes place. We have in the blood, therefore, a large reserve of alkali which is spoken of as the "alkali reserve."[1]

The kidney aids in maintaining equilibrium by excreting an excess of alkali or acid. It is capable of holding back alkaline phosphates to replenish the alkali reserve. It also aids in another way by furnishing a hormone which converts ammonia to urea. An excess of ammonia unites with acid to form salts which are in turn excreted by the kidney.

By pulmonary ventilation, carbon dioxid is released, giving another pathway for the elimination of acid.[1] With an increase of carbon dioxid or an interference with pulmonary ventilation, there is a marked increase in respiratory activity. Do not forget that equilibrium can be greatly disturbed by impaired pulmonary ventilation or deficient kidney excretion. A failure on the part of the body mechanism to properly neutralize or eliminate acids results in a depletion of the alkali reserve. This relative increase of acid or depletion of basic substances is spoken of as "acidosis." The symptoms of acidosis are caused by an increased activity of the normal defenses of the body. The most striking clinical symptom is hyperpnoea, or "air hunger." At first, the breathing is deep; later, the accessory muscles of respiration are often brought into play, and there is an increase of rate. Cyanosis is not characteristic of acidosis. Drowsiness may be noted, usually due to acetone bodies. Vomiting may or may not be present, but is not a symptom of acidosis.

Laboratory methods of diagnosis are also valuable in acidosis. They are: (1) The determination of the carbon dioxid tension in the alveolar air[3]; (2) the determination of the bicarbonate reserve of the blood plasma[4]; (3) Sellards' serum test[5], and (4) the alkali tolerance test of Sellards. Acetone bodies, of course, may be detected in the urine, but the presence or absence of acetone bodies is not sufficient evidence that acidosis is, or is not, present. Of these tests, the first two are of particular value. There are various clinical types of acidosis mentioned in the literature, but no definite classification. Most observers speak of acidosis in terms of etiological factors, such as acidosis due to acetone bodies, acidosis due to retention, etc. Acidosis may be classified on such a basis, as follows:

1. Acidosis due to acetone bodies, as seen in diabetes, cyclic vomiting, recurrent acidosis in infants following starvation, anesthesia and eczema. The urine in this type contains larger amounts of acetone bodies.

2. Carbon dioxid acidosis as seen in cardiac disease; various pulmonary diseases, such as asthma, massive consolidation and double empyema. There is usually no marked diminution of the alkali reserve in this type. The acidosis is due to inefficiency of the pulmonary mechanism and increase in carbon dioxid results.

3. Acidosis of renal origin. This type is due to the inability of the kidneys to excrete acid, especially acid phosphate. As a rule, no acetone bodies are present in the urine. The alkali reserve of the blood is depleted.

4. Acidosis due to absorption of acid is quite possible and may be produced by injection of large amounts of hydrochloric acid, or by the production of lactic acid, as often occurs in convulsions or during severe exercise. The alkali reserve in this type may be depleted to a marked degree.

5. Acidosis occurring with diarrhea. It has been shown that in diarrhea of infants, a large amount of alkali is lost in the stool.[6] Due to the water loss, there is faulty elimination from the kidney, resulting in retention of acid products, the chief of which is sodium acid phosphate. In these cases, carbon dioxid is low. There may, or may not be, an overproduction of acetone bodies. A decrease in urine elimination is usually marked and acidosis is probably due to retention of acid products as well as to excess loss of salt and water.[7]

The prognosis in acidosis depends upon the cause and severity. The general condition of the patient may be a big factor. Acidosis, as a rule, is a sequel of some preceding condition. The acidosis may be relieved and yet the preceding condition may remain a harmful factor. With the introduction of insulin, the prognosis for diabetic acidosis is better. In acidosis due to retention, much depends upon the amount of kidney impairment and dessication; this type usually offers the least favorable prognosis. Acidosis occurring during the course of diarrhea is a dangerous complication. Early recognition and proper treatment improve the prognosis.

3. Marriott: Jour. A. M. A., 1916, Vol. lxvi, p. 1594.
4. Van Slyke: Jour. Bio-Chem., 1917, Vol. xxx.
5. Sellards: Johns Hopkins Hosp. Bull., 1914, Vol. xxv, p. 101.
6. Howland and Marriott: Penn. Med. Jour., April, 1918, Vol. xxi, p. 429.
7. Howland and Marriott: Am. Jour. Dis. Child., 1916, Vol. xl, p. 309.

TREATMENT.

There are three principles which should be observed in treating acidosis: The prevention of the production of more acids; replenishment of the alkali reserve, and the production of sufficient elimination of acid and acid salts. (The treatment of diabetic acidosis is not considered here, as it rightly belongs to the treatment of diabetes.)

Glucose is especially indicated in all cases due to acetone bodies. It is best given intravenously in 5, 10 or 20 per cent solutions. An infant from one to six months old should be given from 75 to 100 cc. of 10 per cent solution intravenously, repeated within six to eight hours, if needed. Marriott uses a 20 per cent glucose solution to which is added one unit of insulin for each two grams of glucose. The insulin may be safely omitted, but at least twice as much normal saline, subcutaneously or intraperitoneally, should precede the glucose. He gives from 75 to 100 cc. of this solution intravenously, to an infant of from one to six months old, and to older children, up to fifty pounds, 5 cc. of glucose per pound of body weight. Use either 5 or 10 per cent glucose without insulin.

Sodium bicarbonate when indicated may be given by mouth or intravenously. It should not be given intraperitoneally, by rectum, or by hypodermoclysis. If the infant is not vomiting, one gram of sodium bicarbonate may be given by mouth every two hours, until the urine is alkaline to cresol-purple.[8] It should then be discontinued, or a sufficient amount given to keep the urine just alkaline, as it is not difficult to produce an alkalosis. Following large doses of sodium bicarbonate, two patients seen by me had developed convulsions due to alkalosis. If given intravenously, a 2 to 4 per cent solution may be used and from 50 to 77 cc. should be given to infants from one to six months of age, and more to older children. The sodium bicarbonate solution is made, by adding sodium bicarbonate to sterile distilled water.

Water by mouth in large amounts should be given unless vomiting prevents, in which case water by rectum is indicated. Saline or Locke's solution, intraperitoneally and subcutaneously, is of great benefit, especially to the patients with diarrhea. It not only restores the water loss but aids in kidney elimination. Water and saline should be given until the blood-cell-plasma ratio is normal. The normal corpuscular volume of the blood is from 32 to 35 per cent. The corpuscular volume may be estimated by drawing a few cubic centimeters of blood into a test tube and allowing the cells and plasma to separate.

Response to treatment is noted by the disappearance of hyperpnoea, and the increase of urine output. The child becomes brighter, while the percentage of plasma bicarbonate shows a steady rise to the normal amount. Success in dealing with acidosis depends upon early recognition of its presence and a correct differentiation of the type, with prompt employment of the proper means to overcome it.

ABSTRACT OF DISCUSSION.

Dr. Jack F. Perkins, Dallas: Acidosis is often a fatal condition in spite of any treatment. It can usually be avoided, so prophylaxis should be stressed. Mothers should be urged to refrain from excessive purgation, particularly in diarrheal diseases, since diarrhea is the disease which most commonly precedes acidosis. It should be kept in mind that acidosis is an acute condition, which usually develops within a few hours' time and may be rapidly fatal. If the physician does not have access to a laboratory that is equipped to do blood analyses, the determination of the carbon dioxide tension of the alveolar air by the Marriott alveolar air apparatus is reliable enough for diagnostic purposes. The technic is very simple, and can be readily carried out in infants. It should be remembered that most patients with acidosis have an anhydremia as well; this must not be ignored, but sufficient fluids must be given to maintain normal kidney function. Enough alkali may be administered to babies suffering from anhydremia to induce alkalosis.

Dr. J. E. Robinson, Temple: I would like to stress the fact that acidosis is an acute condition and requires immediate attention. The diagnosis can and should always be made clinically. The degree of acidosis is best determined by the CO_2 combining power of the blood. In an acidosis above forty, the treatment should possibly be directed toward relieving the cause, as acidosis is only a symptom, the same as temperature or pain; in an acidosis below forty, intravenous alkalinization should probably be resorted to, as it may be the means of saving life. This relief is very transitory and further alkalinization is of doubtful efficiency. I have found air hunger to be a cardinal symptom of acidosis.

Dr. Geo. B. Cornick, San Antonio: Acidosis is a disease that is best treated in a hospital; it is most difficult to treat in the home. Not only is it essential that the child receive expert nursing care, but the facilities for intravenous and such therapeutic measures are attended with difficulty in the home. This is a malady in which delay may prove fatal; an early diagnosis is essential to a favorable prognosis. Care must be taken to differentiate the toxic conditions that simulate acidosis. Acidosis is most often seen in prolonged diarrheas. It is caused from the loss of alkali in the stools, the low kidney function, and the impaired oxidation. This type of acidosis responds most readily to fluids. The alveolar test is the most difficult laboratory test in infants. The test for the alkali reserve in the blood is the best and the one most easily available. The alkali reserve of the body is normally 3 grams per kilo of body weight. If by the above tests the reserve is found to be low, then by calculations the needed amount of alkali can be added to the system and thus the danger of alkalosis may be avoided. Let it be borne in mind that alkalosis is a condition

8. Manufactured by Hynson, Westcott and Dunning, Baltimore, Md.

requiring as heroic a treatment as acidosis. I would advise the intramuscular injection of a 16 per cent solution of magnesium sulphate, following the administration of sodium bicarbonate. The dose of magnesium sulphate should be .4 grams per kilo of body weight.

Dr. Moore (closing): I appreciate the interest shown in the paper, and I want to thank the doctors for their liberal discussion.

NOTES ON THE TREATMENT OF THE TOXEMIAS OF PREGNANCY.*

BY

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The effectiveness of a mode of treatment may be judged either by the study of statistics or by conclusions drawn from personal observation. In the case of a disease so variable in severity as eclampsia, statistics covering small series of cases are more apt to prove misleading than otherwise, since a given method may have been used in a group of inherently mild cases and so be given undue credit for its effectiveness. Also, many fulminant cases occur, in which no treatment is of avail. The same objection applies to conclusions drawn from personal observation of small series of cases; but here the observer is studying actual cases in which the real severity of the disease may be estimated, and the effectiveness of a given treatment compared with that of another treatment applied in similar cases in the observer's experience.

PROPHYLAXIS.

There is no doubt but that the most important factor in the reduction of the morbidity and mortality of eclampsia lies in prophylaxis, which consists of the recognition and prompt treatment of the pre-eclamptic status. Parenthetically, many cases of supposed pre-eclamptic toxemia undoubtedly represent cases of mild, unrecognized nephritis, which have been made apparent by the strain of pregnancy.

Since most cases, once the toxemia is established, move rapidly to the eclamptic stage, frequent personal observation of every pregnant patient is an absolute necessity. It is the duty of the obstetrician to see his patient every two weeks during the first seven months, and weekly during the last three; and at each observation to examine the urine for albumin, to take the blood pressure, and to question the patient specifically in regard to the cardinal symptoms of pre-eclamptic toxemia-headache, blurring of vision, epigastric pain, and generalized edema. (A note of interest may be made at this point, that in the series here reported there were several cases of nephritic toxemia with blindness of varying degree, which presented normal fundi, and three cases of pre-eclamptic toxemia or eclampsia—one proven by autopsy —which presented definite albuminuric retinitis. Report will be made in the future on the findings in regard to levulose tolerance and phenoltetrachlorphthalein as an index to hepatic efficiency, and hence to the diagnosis between eclampsia and nephritic toxemia.)

The occurrence of any of these symptoms or signs should call for the prompt confinement of the patient to bed on a milk diet, with daily urinalysis, blood-pressure readings and personal observation. If the symptoms persist, or become worse—or if other symptoms appear—a moderate daily dose of magnesium sulphate should be given. Impending eclampsia is usually heralded by a marked increase in the symptoms: headache, amaurosis, epigastric pain and increased blood-pressure, being especially important.

TABLE I.

	No. Cases.	Maternal Deaths.	Percentage Maternal Deaths	Fetal Deaths	Percentage Fetal Deaths
Non-convulsive Toxemias	38.	0	.....	4.	.....
Convulsive Toxemias:					
Eclamptic Group	59.	10	16.9%	14	23.7%
Nephritic Group	12.	4	33.3%	3	25.0%
Nephritic (?)	5.	3	60.0%	3	60.0%

Such increase in symptoms, especially if the patient becomes stupid or begins to have minor twitchings, call for prompt hospitalization (if possible) and the institution of curative treatment.

CURATIVE TREATMENT.

The curative treatment may be considered under three heads: (1) eliminative, (2) sedative, (3) the termination of pregancy.

Eliminative Treatment—The saline purge seems to us to be of definite efficacy, since in several cases of pre-eclamptic and of post-eclamptic toxemia the symptoms were held at a minimum while a daily dose of magnesium sulphate was being given, only to grow worse on its omission. The hot pack, with or without pilocarpin, has been quite universally discarded on account of the frequency of death (often associated with pulmonary edema) in or just after the pack. Twenty-three cases treated by hot pack in our series showed a maternal mortality of 7, or 30.4 per cent and a fetal mortality of 8, or 34.8 per cent.

Sedative Treatment—Morphine is very effective in controlling the convulsions, but we have found it relatively ineffective alone or in combination with chloral (Stroganoff

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

method), unless aided by venesection. Chloral, alone or with magnesium sulphate, seemed effective in mild cases, but ineffective in severe cases where it was tried for a time. Bromides seemed to be of no great value as an adjuvant to chloral, and, in repeated large doses frequently gave rise to confusing, and sometimes alarming, cerebral symptoms, such as delirum and semi-coma. Chloroform, discarded by many on account of its effect on the liver, is used by us only to control convulsions or while bleeding a struggling patient immediately after admission.

Venesection may act, in part, by eliminating some toxic substances, but its great apparent effectiveness seems to be due to the reduction in arterial pressure. In no case in this series were there any convulsions when the systolic blood-pressure was known to be below 140 mm. When the blood-pressure was not materially reduced by copious (750-1000 cc.) bleeding, convulsions always remained uncontrolled, and the mortality in these cases was high, only one such case out of three surviving. The occasional continued fall of blood-pressure to less than 110 mm. with symptoms like those of shock, was successfully combated in each case by hypodermoclyses of a liter of normal saline solution. (This was followed in each case by increase in the amount of urine passed.) When operative delivery is contemplated after venesection, it is well to have a compatible donor available before operating. The bleeding is accomplished through a transfusion needle when possible.

Spinal puncture in several cases was not followed by any abatement of symptoms. Veratrum has been discarded by us on account of its uncertain and uncontrollable effect as compared with venesection. Rupture of the membranes did not seem to have any constant effect. Intravenous glucose gave no appreciable beneficial results. Insulin and thyroid have not been used by us.

The termination of pregnancy would seem to be the logical curative treatment: Eclampsia is in some way dependent upon the existence of pregnancy; therefore, eclampsia will be cured by the prompt termination of pregnancy. Unfortunately, this is not true in many cases; other factors, such as the interests of the fetus must be considered, and the problem is not simple.

Our rule is to terminate pregnancy by the most conservative means appropriate in all cases past the eighth month, shortly after the symptoms are controlled, or at any stage of pregnancy when the symptoms fail to respond promptly to treatment, or in known cases of nephritic toxemia, or when the fetus is nonviable or dead. If the fetus is alive and its age between seven and a half and eight months, an attempt is made to carry it to eight months if the symptoms are almost or quite relieved; if it is between seven and seven and a half months, an attempt to carry it to eight months is made only if the eclamptic symptoms are entirely relieved by the treatment.

TABLE II.
MANNER OF TERMINATION OF PREGNANCY.
C=Cases. M=Maternal Deaths. F=Fetal Deaths.

	Sp.			Ind.			Fip.			VE			CS			(?)			N. D.		
	C.	M.	F.	C.	M.	F.	C.	M.	F.	C.	M.	F.	C.	M.	F.	C.	M.	F.	C.	M.	F.
Non-convulsive	21	0	0	9	0	0	8	0	4	..	..	..	....	..	..	..	..	..	..	..	..
Convulsive:																					
Eclamptic and Eclamptic (?)	18	1	2	10	2	2	13	2	4	6	2	1	11	3	5	1	0	0	..	..	..
Nephritic and Nephritic (?)	4	1	1	3	1	0	2	0	0	1	0	0	....	..	..	1	1	1	1	1	1
Undetermined	1	0	0	....	..	..	1	1	1	1	1	1	2	1	1	..	..	..	..	..	..
Total	23	2	3	13	2	2	16	3	5	8	3	2	13	4	6	2	1	1	1	1	1

Mortality:

	Sp.	Ind.	Fip.	VE	CS
Maternal	8.1	23	18.7	37.5	30.8
Fetal	13.	15.4	31.2	25	46.1

The manner of the termination of pregnancy is decided wholly on the merits of the individual case, bearing in mind the effect of prolonged and violent labor in creating rises in blood-pressure, and the low resistance to infection of the eclamptic woman. In cases treated by morphin, an interval of at least eight hours is allowed to elapse before delivery, when possible, in the interest of the fetus. It has been our observation that babies born in opium narcosis almost always require prolonged artificial respiration, and have a higher death rate from asphyxia than is the case with babies not so narcotized.

The Rotunda Method consists of the following: One-half a grain of morphin is given, and gastric lavage, leaving 2 ounces of castor oil in the stomach; and a colonic lavage of 5 gallons of 5 per cent glucose every 4 to 6 hours. The patient is bled if the blood-pressure is 175 mm., and the bleeding is stopped when the pressure falls to 150 mm.

The Stroganoff Treatment: The patient is isolated in a dark room and ¼ grain of morphin is given, which is repeated three hours later. Thirty grains of chloral hydrate are given, one hour and six hours after the first dose of morphin, and 22 grains of

chloral hydrate, 12 and 20 hours after the first dose of morphin, and three times a day thereafter, if necessary.

Our present system of curative treatment is as follows:

Isolation in a dark room with plenty of fresh air, on a milk diet, with a daily dose of one ounce of magnesium sulphate. The Stroganoff treatment is instituted, and in addition, on admission the patient bled to 750 cc. or until the blood-pressure falls to 140 mm. systolic. Chloroform is used, if necessary, to control the convulsions during the struggling of the patient while bleeding. If the patient is more than eight months pregnant, labor is induced promptly upon the subsidence of symptoms or if the symptoms remain intractable over a period of 4 hours, always allowing not less than 8 hours to elapse after giving the last dose of morphin, if this is possible. Cesarean section is done only on indications other than the existence of eclampsia.

TABLE III.

		Maternal Mortality	Fetal Mortality
De Lee:	General	10–45	30–60
	Quotes Stroganoff	6.6	.....
	" R. Peterson, 615 cases:		
	Radical	19.9	.....
	Conservative	28.9	.....
	" Freund, 550 cases delivered within 1 hour of first convulsion	0.0	.....
	Ninety personal cases, maternal mortality slightly improved after adoption of radical treatment.		
Bauch:	Conservative	6.4	.....
	Operative	14.0	.....
	Vaginal Cesarian	28.0	.....
	Abdominal Cesarean	40.0	.....
Graz Clinic:	Before Stroganoff and venesection	21.7	43.7
	After Stroganoff and venesection	12.8	27.1
McPherson:	Rotunda method, 104 cases	16.3	.....
	Omitting hopeless cases	9.6	.....
	Operative treatment 250 cases	30.8	.....
	Conservative and modified conservative	17.4	.....
Stroganoff:	His method and modifications, 2,208 cases	9.8	.....
	Recent personal series, 253 cases	2.4	.....
Back:	Modified Rotunda method, 38 cases	16.6	.....
	Nonconservative	22.2	.....
Heinlein:	Conservative, 57 cases	7.0	13.0
	Nonconservative, 107 cases	23.3	16.0
Zweifel:	Active	18.5	36.0
	Conservative	8.5	18.8

It is our belief that this treatment is more successful in severe cases than any other method we have employed; improvement being more prompt, more complete, and more lasting in its effects. In 11 severe cases so treated there was only one maternal and one fetal death. Magnesium sulphate and morphin only were used in 5 cases with no deaths, but these were all mild cases. Cesarean section was used only in fulminant cases, and hence our figures are of no statistical value.

CONCLUSIONS.

The only conclusions that can be drawn from the conflicting statistical evidence, and from a small personal experience, are:

1. The convulsive toxemias of pregnancy constitute a type of disease of very variable severity.

2. Each case must be considered wholly on its own merits.

3. Rational conservative treatment followed by the termination of pregnancy probably gives the best results in the average case.

4. Sound obstetric principles (not forgetting the fact that eclamptics have a very low resistance to infection) must always be borne in mind in selecting the manner of the termination of pregnancy.

ABSTRACT OF DISCUSSION.

Dr. H. W. Johnson, Houston: I am not so greatly interested in the treatment of eclampsia as in its prevention and the treatment of the pre-eclamptic state. In 1,000 cases reviewed there was only one death and it was not due to eclampsia. Even in the New York Lying-in Hospital, they have only 1 per cent of eclampsia. It is a routine with them to take the blood-pressure. It has been found that 10 per cent of the prenatal cases show from a moderate to severe degree of eclampsia. If the diastolic pressure is above 86 and up to 90, it indicates a potential nephritis and the patient should be carefully watched. The first symptom of absorption to be noted is a rise in the diastolic pressure, and even the mild forms may show a rise to 90. If the woman is having any absorption, the primary effect is on the kidneys and will produce symptoms immediately: headache, pains and nervous symptoms. A diastolic pressure of 100 indicates that the patient is absorbing more than she will be able to care for. The diastolic pressure should not be allowed to reach 110 mm., but if it does, labor should be terminated. Control the nervous symptoms, rupture the membranes, and let nature take its course.

Dr. E. T. Morris, San Benito: I have had a number of cases of eclampsia. On the Mexican border we most often never see the case of pregnancy until the woman is in convulsions. I believe eclampsia is a pure nephritis. The preliminary treatment of these cases is very important, but most of the cases we have never come for prenatal care. If it is possible to watch the blood-pressure and the urine, we have a much better opportunity to prevent the condition. I have had two patients that had progressed so far as to have blurring of the vision, headache and nervous symptoms that cleared up under the proper treatment. Those with high blood-pressure may be benefitted and the blood-pressure held down by giving salines and a milk diet. If in attendance upon a patient that is begining to look wild and complains of not being able to see, no time should be lost. Do not be afraid to give morphin in ½ grain doses, even up to two grains in a very short time. In primiparae it is not always possible to deliver quickly; in such cases, give a large amount of morphin and epsom salts, and bleed the patients.

Insulin-Squibb 40 Units, 10 Cc.—Each cc. contains 40 units of insulin-Squibb (New and Nonofficial Remedies, 1925, p. 174). E. R. Squibb & Sons, New York.

SOME PHASES OF THE DIAGNOSIS AND TREATMENT OF POLLEN HAY-FEVER AND ASTHMA.*

BY

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The conclusions in this brief paper are based on an intensive study of over two hundred cases of this type, tabular statistics being omitted for lack of time and space. Especial study has been given to our failures, many of whom we have been able to keep under consideration for several years.

Asthma and hay-fever seem to be the clinical evidences of a cellular hypersensitiveness, usually hereditary or familial, to certain irritants, ordinarily protein in character. In some cases this specific hypersensitiveness is limited to the respiratory tract, including the ocular mucosa; in others, it includes the skin and gastrointestinal systems. Advantage is taken of this accompanying cutaneous sensitiveness for purposes of differential diagnosis. This discussion is limited to cases of pollen origin, making up by far the greatest bulk of the cases. Feathers, animal epithelial emanations, food, occupational or house dust, or odor cases, are not being considered.

Treatment results gathered from various workers were satisfactory in about 60 per cent of cases. On taking up this work some four years ago, I doubt if my own successes ran that high. With study and experience, success in my cases conservatively passes 80 per cent, at the present time, with a lessened percentage of failures each year. Not a few such failures of past years have since been brought into the successful class as a result of reviewing both disgnoses and treatment.

The object of treatment in these pollen cases is to induce a gradual tolerance to these extracts by the employment of pollen extracts given hypodermatically in ascending doses, which tolerance is taken up by the cells of the nasal and bronchial mucosa, as well as by the local cells at the site of the treatment injections, so that contact with such air borne pollen is withstood without the incidence of the clinical allergy symptoms of hay-fever or asthma previously brought about by such contact.

It is generally assumed today that pollen sensitiveness is specific; that is, that a single pollen immunization will protect against that pollen only. Hence, two requisites are obviously demanded: first, the employment of the correct pollen or pollens to which the individual is sensitive; and second, their use in sufficient dosage to secure protection. Consequently, the first requirement in this work is a knowledge of the botanical varieties capable of producing a hay-fever or asthma reaction, with an additional knowledge of the incidence and duration of their pollination seasons.

In this connection, only air-borne pollen counts. Insect pollinated plants, for example, those of attractive odor or color—are extremely rare factors, as their pollen is heavy and scarce; and in fact, frequently difficult to collect for purposes of microscopical identification. Hay-fever plants, on the other hand, give off an immense amount of wind-borne pollen which can be easily trapped on an ordinary glass slide covered with glycerine. A little study of such slides by comparison with the appearance of gathered pollen of known wind-pollinated plants makes one familiar with the microscopical appearance of the pollen of one's vicinity, at any and all seasons of the year. A few drops of Lugol's solution to differentiate grass from other pollen is practically the only staining reagent required.

Unless such a pollen calendar has been worked out previously, diagnosis is a matter of presumption and not of fact. This is absolutely necessary, as in a country the size of the United States, with wide variances of altitude, heat and cold, and rainfall, not only does the botanical growth differ widely in various sections, but also the periods of seasonal pollination. For instance, I assumed at the start of my work of this character that autumnal symptoms were due to the ragweeds of the North and East as given by all authorities, with the result that my immunization treatments were, on the whole, utter failures. When I had analyzed the pollen content of the air of San Antonio for a year and a half by almost daily observations of specimens from both residence and business districts, I learned that, as a matter of fact, grass pollination in the fall far exceeded that of the ragweeds, and also that grass pollination with us, instead of lasting from three to six weeks as in the North and East, continued actually some ten and a half months; and that instead of being an insignificant factor, never or rarely requiring treatment, as is the case in Kansas City, St. Louis, Chicago, New York or New England, was really the principal pollen factor with which one would have to deal in San Antonio and vicinity. Air analysis also revealed the fact that we have not an inconsiderable number of cases of summer and early fall hay-fever and asthma not due to the ragweeds or grasses at all, but to the amaranths or "carelessweeds." When I say

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that such pollens are the causes of symptoms, I mean that not only are they in the air in quantity at such seasons of the year as correspond with the onset and duration of the patient's symptoms, but also that immunization by the use of extracts of grass and amaranth pollen respectively, prevented the usual expected recurrence of hay fever and asthma in these cases.

To secure absolute perfection in this work, pollen calendars should be made from air analyses in all our large cities with a corresponding actual checking up field survey, as all cases coming for treatment are not local cases, and for intelligent results there must be some knowledge of what grows elsewhere.

The history of the patient is of enormous assistance in connection with this knowledge. For instance, a summer hay-fever case showing positive skin tests to carelessweed and the sages could have such hay-fever from the sages only in the West and Northwest, but not in Central or East Texas, as no sage growth exists there. Marsh elder (Iva ciliata), prevalent in Houston, does not grow in San Antonio. A case of hay-fever or asthma from the North or East, made worse in Los Angeles and lasting through the entire year there, is in all probability a grass case, as grass pollination is practically perennial in Los Angeles, as it is with us in South Texas. Also, as far as I can observe, ragweed is much more of a problem in Dallas and Fort Worth than in San Antonio.

In San Antonio we have four prime pollen hay-fever and asthma seasons: Spring, the grasses; summer, grasses and carelessweed; fall, ragweed, grasses and carelessweed; winter, mountain cedar, and, at times, also the grasses. The seasons of each overlap, but are sharply enough defined for a history of the onset and duration of the trouble to be a reliable guide as to the pollen etiology. Our conditions hold good for the Rio Grande Valley and also the Panhandle, with the exception of mountain cedar, which does not grow naturally in the coast country or on the western plains. On the other hand, grass pollination, and to a lesser extent, carelessweed pollination, along the Gulf coast, are practically perennial for the reason that these growths last until the coming of killing frosts. Frosts in that section are usually light, and in some years do not occur at all.

Once a knowledge is acquired of what pollen is the etiological factor, the next question that arises is the method of immunization and the dosage required to confer protection. Treatment, where possible, should be preseasonal by at least three or four months. Before starting treatment, a series of intradermal skin tests should be performed with serial dilutions of the extract chosen, to note at which point sensitiveness starts. I employ the following dilutions: 1:20, 1:50, 1:500, 1:5,000, and if all give positive tests, then 1:10,000, 1:20,000, 1:40,000; and once or twice I have had to use as low as 1:80,000. No treatment is safe to start with that gives a positive skin reaction. Pollen immunity is rapidly acquired—and frequently as rapidly lost. I give treatments not twice a week, but twice and occasionally three times a day, beginning with 0.05 cc. of the lowest non-reaction producing extract, no matter how strong that may be, until reactions appear. Doses proceed in the following sequence: 0.1 cc., 0.15 cc., 0.2 cc., 0.25 cc., 0.3 cc., 0.4 cc., except when changing from a 1:50 to a 1:20 extract, where the skip is from 0.2 cc. of 1:50 to 0.05 cc. of 1:20.

The slightest erythema or induration at the site of the needle puncture calls for a repetition of the dosage until its tolerance is denoted by the absence of the slightest evidences of cutaneous irritability, and no treatment of any kind should be given until all evidence of the reaction induced by previous treatments has completely disappeared. What is being sought for is the induction of tolerance; overdosage is not tolerance. If too large a dose is started off with, and the increase in dosage is persisted in in a mechanical manner, disregarding the warnings thus given by the skin, hay-fever, asthma, and, at times, intense urticaria and erythema multiforme, will result, all the symptoms of severe pollen anaphylaxis—not at all free from serious danger. At times, such severe reactions will be produced by the accidental deposit of the extract in a small vein, despite all precautions. Epinephrin should be given at once in 0.5 cc. doses and repeated every ten to twenty minutes until relief is secured. In fact, no one should do this work without having epinephrin at hand to meet this eventuality, which is bound to happen at times. These severe reactions, aside from the risk, are regrettable in that they increase hypersensitiveness. To avoid this, it is my custom to give epinephrin three times a day for two or even three days after such a reaction. The drug seems to act as an antidote to any surplus antigenic material still in the economy, permitting, it seems to me, the resumption of treatment earlier and in larger doses than without its use.

The final dosage of a pollen extract necessary for protection, varies according to the section of the country and the individual pollen, and can be learned only by hard

actual experience. The dosage of a grass extract in the North with a three or four weeks' pollination season must be vastly different from what is required in Houston, for example, with a ten to twelve months' season, and a vastly greater amount of pollen in the air. I cannot state anything positive about the amount of dosage material required, except in San Antonio cases, but I imagine this will also hold good for Houston. In my experience the dosage is as follows: For spring grass cases 0.2 cc. of 1:20; for fall grass cases 0.35 to 0.4 cc. of 1:20; for amaranth cases 0.2 cc. of 1:20; for ragweed cases 0.2 cc. of 1:20. The pollen extracts mentioned represent a 4-day extraction in Cocas solution 33 per cent, and glycerine 66 per cent of pollen previously rendered fat free by extraction with acetone and sterilized by Berkfeld filtration. Whether the figures mentioned for ragweed will hold good for other sections than San Antonio, where its growth is more abundant, as in Dallas or Fort Worth, I cannot say.

Pollen immunity may be permanent, but more frequently is only transient, and ordinarily, treatment is repeated regularly for several years. It is my custom not to let the immunity lapse, once it has been induced. This is especially necessary in the grass cases on account of the ten months' pollination season. Once induced, pollen immunity can be maintained indefinitely by the use of the maximum dose at from 5-day to weekly intervals.

The above description is for the handling of preseasonal cases, before pollen is in the air, and in the absence of symptoms. Immunization is not practical in the presence of active hay-fever or asthma. Unfortunately, most of our local asthma and many of our hay-fever cases are of grass etiology, and are seldom encountered in the two or three months of the year that they are comparatively free from symptoms. Sending cases away to the coast or to some desert section of New Mexico is not always practical. While more difficult, these cases can, more often than otherwise, be cleared up sufficiently for immunization purposes.

Treatment can be given at any time there is freedom from symptoms for three or four hours—the method of treatment, dosages, etc., being identical with the preseasonal cases, except that extreme care must be exercised to give no treatment in the presence of the slightest active symptoms. If epinephrin is used to assist in the clearing of these cases, there should be a delay of at least three hours after its employment. This agent, if used at all, should be given in sufficient dosages to secure complete and not partial freedom from symptoms, before specific treatment is given. The following general measures will ordinarily be found successful. Existence as far as possible should be limited to the downtown sections of a good-sized city, away from contact with empty lot weeds or grass, and indoors as far as possible. All air currents should be avoided. In sleeping or working rooms a single window only should be kept open, with all doors and transoms tightly closed. An electric fan should be kept constantly in action, going day and night, placed in front of the window in such a way as to prevent the entrance of pollen. This makes the best pollen screen I have been able to find. Liquid petrolatum or albolene makes the best protective coating for the nasal mucosa. Automobile rides out of the business districts are forbidden. Living and sleeping rooms should be on the opposite side of the house from the prevailing winds.

This method will clear up almost all pollen hay-fever or asthma cases enough to permit of specific treatment. High winds or enforced breaking of these rules, or course, results in delays in treatment, on account of the symptoms they produce before immunization can be completed. The above method is applicable to cities of the size of Houston or San Antonio, that have a business district of appreciable extent. Pollen cases of asthma coming to San Antonio during pollen season, which means almost all the time, cannot expect to clear up in any of our hospitals or in our residence sections, but they will clear up in a down town hotel or rooming house.

Often, our problem is complicated by the existence of sensitiveness to more than one pollen. The history of the case will enable one to determine the most important of these factors. If immunization be pushed to a high degree in regard to this most important factor, it will often be found that this single immunization has sufficed in a large measure, against the other minor factors. In this sense, pollen immunization is not absolutely specific. I have in my records several cases where immunization against grass has obliterated the previously existing strongly positive ragweed skin tests and given full clinical protection without the necessity of using the planned additional ragweed immunization. For safety's sake, a few doses of strong dilutions can be used, and the secondary immunity raised in a few days instead of weeks, as had been originally expected. I find it much more successful to push one pollen through to completion, instead of using a mixture or alternating several.

So much has been said regarding the use of the skin tests in the diagnosis of pollen asthma that no detailed mention of the technique of their employment is here required. The average commercial testing extracts are of 1:50 strength, and, on the whole, are satisfactory, but are far from infallible. And if diagnostic tests were limited to their use, many a case would be missed completely—especially of asthma, but occasionally also of hay-fever. Sensitiveness is a matter of degree and dosage. The average hay-fever case will give a definite positive skin test with a dilution as low as 1:500 or 1:5,000, but not infrequently the sensitiveness is so slight that extracts of 1:50 will be negative and even at times also, extracts of the strength of 1:20. In fact, treatment can be carried to the point of the complete disappearance of the huge positive skin test originally secured by the ordinary commercial 1:50 extracts, without the slightest benefit to the asthma or hay-fever, but the symptoms will clear up if the treatment is pushed to the use of large sized doses of a 1:20 extract.

In the same way, huge dosages of pollen received by the natural channels can cause severe symptoms in the absence of any great degree of sensitiveness. A not inconsiderable number of my cases, previously considered purely animal hair or feather cases on account of the repeated negative pollen tests, have relapsed with the incidence in the air in quantity of the pollen to which they were actually sensitive, clearing up after immunization to this pollen. In the same manner, I have succeeded in clearing up a number of cases of both hay-fever and asthma that never gave positive skin tests to any allergen at all, by immunizing them to the pollen that their history indicated to be the causal factor. Curiously enough, cutaneous reactions will at times be secured by the use of the pollen extracts during the treatment hypodermatically administered, where intradermal administration had shown nothing. At the present time, I invariably use the hypodermic as well as the intradermal tests in my pollen-negative cases, where the history indicates a possible pollen etiology, frequently securing positive results. Also lately, I make it a practice to administer grass immunization to most of my apparently chronic, perennial pure animal hair or feather cases as a matter of precaution, with already an appreciable increase in successful outcomes.

From all this, it can be readily seen that the successful handling of hay-fever and asthma consists of a great deal more than the application of a few routine commercial skin tests, followed by the mechanical administration of from 16 to 20 previously determined advertised dosages, none of which may be applicable to the individual case at hand. Such routine may help about 40 per cent of the cases, but will benefit fewer than that in Texas—if my experience is of any value. Such a figure may be of some consolation to the physician handling only an occasional one of these cases, where a failure is of little importance to him, but a practitioner who is attempting to specialize in, or do any amount of this work has to secure far better results.

ABSTRACT OF DISCUSSION.

Dr. J. H. Black, Dallas: Hay-fever is not an evidence of a local sensitization. Hay-fever is a constitutional disease. In no sense is it confined to the nasal mucous membrane. This is proven by the fact that there are antibodies in the blood that react with the protein of the pollen. In the treatment of hay-fever, I consider it of vital importance that the doctor know the pollen that predominates in his particular locality. It should be remembered, too, that this pollen may change in very short distances. I favor the intradermal method of diagnosis to any other. It must be remembered, in making the tests, that there are some pollen-sensitive cases who show no skin reactions.

Since it has been shown that the protein of pollen is not the active substance, there is no method of standardizing extracts. Therefore, it is impossible to say that patients should have certain dilutions when these dilutions are made with different technics and from different batches of pollen. The dosage may be measured by its effect on the individual patient and increased gradually until the largest possible doses are given.

One does not know whether he is getting a tolerance or an immunity, because the underlying mechanism of the disease is not known. Since this is not known, the spacing of doses, the size of dose, etc., must be speculative. There are some things which make one believe it is tolerance, and other things which lead one to think it is immunity that is secured. The best results will not be gotten until these facts are determined.

Dr. Kahn (closing): I will agree with Dr. Black that no set dose can be determined for the administration of pollen. I can relate a personal experience of my own. I made some pollen dilutions this year by identically the same method as the previous year. However, to my surprise, I found the present dilution twice the strength of the one of the year before. I believe that most of the cases that are relieved are cases of tolerance and not immunity. This tolerance is soon lost; it rarely lasts longer than from 6 to 10 months.

Vi-Mal Dex (Orange).—A mixture containing, approximately, maltose, 28 per cent; dextrose, 10 per cent; dextrin, 48 per cent; orange juice sugars, 9 per cent; citric acid, 1 per cent; ash, 1 per cent; moisture, 3 per cent. One hundred gm. contains the equivalent of 93.5 cc. of fresh orange juice. Vi-Mal-Dex (orange) is proposed as a carbohydrate food for use in the feeding of infants. In addition to the carbohydrates, dextrose, maltose and dextrin, it presents the antiscorbutic properties of orange juice. For use, Vi-mal-dex (orange) is mixed with water or milk. Merrell-Soule Co., Syracuse, New York.

ROENTGEN DIAGNOSIS OF PULMONARY TUBERCULOSIS.*

BY

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The purpose of this paper is to present the reasoning by which the roentgenologist translates the varying lung densities, as revealed by the *x*-ray, into applied pathology.

We would not in any way detract from the value of a well taken history, and a thorough physical and chemical laboratory examination, and we can but decry the growing tendency to leave more and more to the roentgenologist alone, the diagnosis of lung conditions—not that we do not believe that the *x*-ray offers the best single diagnostic and prognostic evidence, but because the best result can only be obtained by the proper correlation of all available information.

The first essential in an *x*-ray study of the chest, after the fluoroscopic observation, which reveals limitations of motion, degrees of illumination, changing fluid levels and gross structural changes, is a soft set of stereoscopic *x*-ray films, made preferably with the patient in the vertical, with an up and down shift of the tube and with a milliamperage of from 100 to 300, at a distance of from 3 to 4 feet, and not to exceed 1/10 of a second exposure.

When given a good set of stereoscopic films, it is the duty of the roentgenologist to translate the shadows thereon into terms of applied pathology. In many cases, the roentgenologist knows little or nothing of the history, which, we feel, is a decided advantage, as his report will be based solely on the shadows seen on the film and will not be shaded to harmonize with the other findings in the case. The time to correlate is after the findings are all down in writing, and in this way only do we feel that the best results will be obtained.

The accompanying sketch (Fig. 1), which outlines more clearly the anatomical parts than they are usually shown by the *x*-ray film, is worthy of close study, as only by an accurate knowledge of the normal, will the pathological be properly classified. The structures at the hilus are but poorly shown by the modern soft tissue detail which reveals so clearly the peripheral bronchial tree; whereas the more penetrating rays show the structures at the hilus, but burn out the parenchymal lung tissue. As you go over the heart shadow, you will note first, on the left side, the arch of the aorta, the descending arch, the pulmonary artery, the left auricle, and the left ventricle.

On the right side, from below upward just above the diaphragm—you may see the inferior vena cava, the right ventricle and auricle, the superior vena cava, and the right innominate vein.

Coming down the trachea, which normally lies in the median line, you will note its division into right and left bronchi, in front of the fifth dorsal vertebra. The left bronchus goes under the arch of the aorta and enters the hilus of the lung on a level with the seventh rib; the right bronchus, which is the straighter of the two, enters the hilus at the sixth interspace. After entering the hilus, branches are given off to each of the lobes, which in turn give off many branches to the lobules, finally terminating in the alveoli. Thus, it is seen that a disease process, involving the lung periphery, would converge toward the hilus and be somewhat triangular in shape.

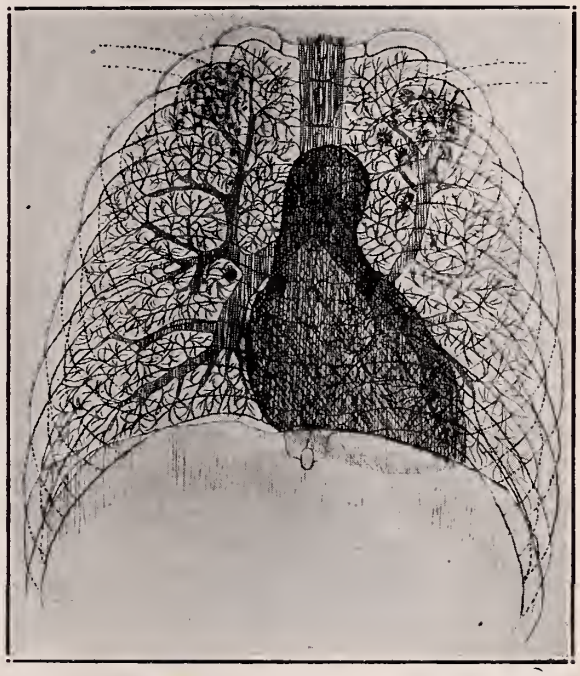

FIG. 1—Diagrammatic representation of Röentgenogram of chest.

The diffuse shadows found at the hilus are made up of the bronchial tree, with its supporting connective tissue, blood vessels and lymphatics. These shadows will vary greatly in normal individuals and a diagnosis of tuberculosis in this region, without an associated lesion in the lung parenchyma, is a subject for grave doubt, although a few seemingly well authenticated cases are on record. The annular rings frequently observed in the hilus, whether made up of inter-

*Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, Austin, May 6, 1925.

lobular pleurisy or cross sections of a bronchus, have been frequently mistaken for cavities, when in reality no cavities existed.

The sharply defined calcareous glands found at the hilus have no clinical significance, being usually due to an early tuberculous or pneumonic infection, which has entirely healed, but the caseo-calcareous gland appearing to be made up of small flakes, is at all times to be considered as a possible active focus of tuberculosis.

We have attempted to show by another sketch (Fig. 2), how the early shadows of

Fig. 2. Sketch, showing how early shadows of tuberculous lesions are produced.

tuberculosis are produced and for that purpose, have used but one infected alveolus. Where the tubercle bacilli, following their usual tendency, have entered the bronchi, lodging in the alveoli, they have penetrated their walls and formed a tubercle in the inter-alveolar spaces immediately beneath the pleura. Because the decreased activity of the alveoli in the upper chest favors the development of tuberculosis, the infection most frequently takes place in the upper third of the chest.

If you study the process of development, using only one alveolus, you will observe that, surrounding the tubercle, there will be developed Nature's defense army, a serous and cellular exudate which, when present in large amount, will appear on the film as a small nebulous shadow. The increased congestion surrounding the tubercles will cause an obstruction to the outward flow of the lymph, which at all times flows toward the pleura. This stoppage will result in increased density of this particular branch of the bronchial tree, made up of bronchus, pulmonary artery and veins, and lymphatics.

To continue this illustration further, and assuming that Nature overcomes the infection in this particular group of tubercles, where before there was a small nebulous shadow at the periphery of a thickened bronchial branch, there will now be a sharply defined fibrous bead and the bronchial tree will appear almost normal. (Fig. 3). In reality, there is not one, but a large number of alveoli in a lobule, infected at the same time. A triangular shaped area will then be seen with its base at the pleura, apex at hilus (so called Dunham fan), filled with sufficient nebulous bodies to give a smoky or cottony appearance. The bronchial tree branches will appear heavy and interlacing. This condition will be translated as active tuberculosis, or, as some prefer to call it, a recent tuberculosis.

Should Nature overcome the infection in the entire area, the tubercles undergoing resolution and fibrosis, there would then be numerous, small, sharply defined, discrete shadows where the tubercles were formerly located, also spoken of as beading. These are interpreted as scar tissue of a healed tuberculous process, or a remote process. The two above conditions can seldom be misinterpreted and represent the *x*-ray findings in pure tuberculosis.

Now let us see what happens in the case where the tubercles undergo caseation instead of fibrosis. The field is soon invaded with pyogenic organisms, the delicate shadows of the pure tuberculous infection are left behind and a heavy, diffuse shadow, smoky in appearance, is presented. This process may become arrested and there will then be very heavy, sharply defined shadows, frequently spoken of as "mottled," with a marked decrease in the capacity of that particular part of the lung to contain air. This constitutes the type of tuberculosis designated as fibroid and is the usual end result in a patient who has recovered from well developed activity.

If, instead of becoming fibroid, the process continues the entire lobule may break down and discharge through the bronchus, the parietal pleura surrounding the lobule becoming heavily infiltrated and thickened,

producing the circular shadows which are designated as cavities. These cavities may be multiple and small or all the lobules in a lobe may be breaking down to form one large cavity, which may or may not contain fluid, depending upon its drainage. As in all diagnostic procedures, the difficulty arises not with the typical and clean-cut cases, but with the atypical and complicated, and in no other field will more variety be found than in a study of *x*-ray films of diseased chests.

Do not mistake us as trying to convey the impression that in each tuberculous chest, one of the above conditions exists. On the contrary, an ordinary case will present the various forms separately, in combination and in transition. Or there may be scattered throughout the parenchyma of both lungs, small, fuzzy shadows, indicating a miliary tuberculosis.

Many diseases cause chest symptoms and produce shadows on the *x*-ray film; they may be independent of, or associated with, tuberculosis and can be classified under one of the following headings: occupational, infections and neoplasms.

Occupational—Men employed in granite works, in coal dust, and in similar occupations, in the course of years, often inhale sufficient small particles to lodge in the areas where tuberculosis develops and produce shadows not unlike those of tuberculosis.

Infections—Upper respiratory infections which produce thickening of the bronchial tree without the peripheral studding, are often confusing and are conditions in which a film with fine detail is essential. The lobar and bronchopneumonias, as a rule, give very characteristic shadows. Lung abscesses not of tuberculous origin, most frequently occur in the lower parts of the lung and are often interlobar. The encapsulating wall is more diffuse than the fibrous ring of tuberculosis. Syphilis, actinomycosis and blastomycosis also cast characteristic shadows. If one of the above infections becomes superimposed upon tuberculosis, it is the duty of the roentgenologist, in so far as he is able, to assign to each its clinical importance.

Neoplasms—Many tumors of the chest cast shadows that are very characteristic and give no suggestion of tuberculosis; on the other hand, malignancies, such as lymphosarcoma, beginning in the mediastinum and involving an apex of the lung very early, may easily be mistaken for a fibroid tuberculosis. Metastatic malignancy is usually bilateral, either beginning in the hilus and extending out along the bronchial tree into both lungs, or scattered throughout the parenchyma of both lungs in numerous small growths. The problem of early metastasis in the lung, is to the roentgenologist what pregnancy is to the obstetrician, sometimes the condition is very evident and at other times a subsequent examination with an opportunity to observe the progress, is necessary.

It will thus be seen that, if we are guided by the characteristic lung fields and the various stages through which they pass, the diagnosis of tuberculosis by the *x*-ray presents much evidence of a definite character. It must also be remembered that it is possessed of many pit-falls and, like every other branch of medicine, experience and training count for a great deal.

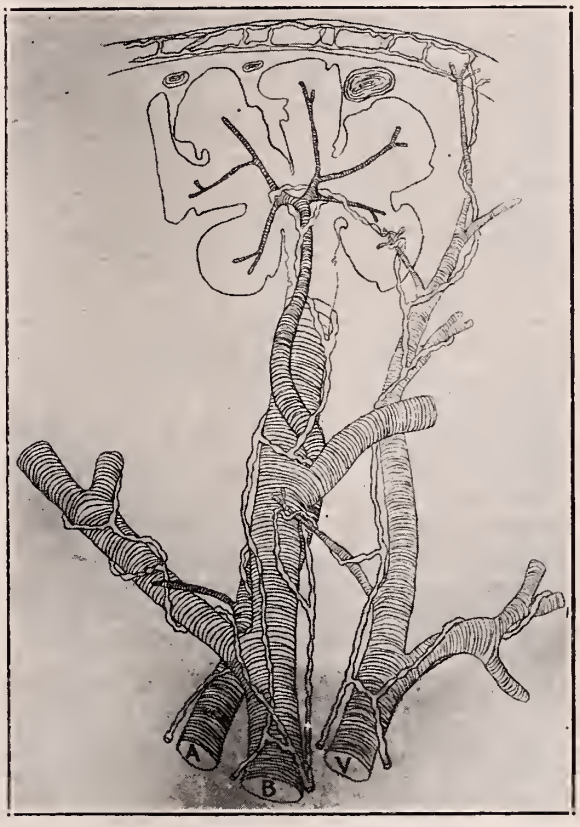

FIG. 3. Diagram showing same schematic section of lung as in Figure 2, after fibrosis and healing has occurred.

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ABSTRACT OF DISCUSSION.

Dr. J. M. Martin, Dallas: Stereoscopic plates of the chest are valuable, if made in the right way, but very confusing if not. When stereoradiographs were first introduced, most everyone doing *x*-ray diagnosis

tried to do this work. We also tried it for a short time, but gave it up because our results were poor. Several years ago we became interested in stereophotography, but our camera was poorly adapted to this class of work and our pictures were correspondingly poor. With better equipment, we have been able to produce pictures equal to the Underwood Travel Pictures. We soon learned that the pictures must be exactly alike and that the focus must be perfect. A difference in the time of exposure of the two plates will make a distinct difference in their quality, thereby varying the perspective and destroying, in a measure, the fine detail. What is true of stereophotography is likewise true of stereoradiography. It is only within the last few months that we have been able to equip our laboratory for high grade stereoradiographic work. One point should be observed carefully, other conditions being correct, and that is that the plates must be put into the developer at exactly the same time and removed at the same time. They should not be taken out of the developer for observation. It is next to impossible to make a diagnosis of early pulmonary tuberculosis from a single plate, no matter how perfect that plate may be. In a stereo plate a natural perspective is obtained and objects near and far are seen in their true relationship. It is our duty to make our report as definite as possible. I try to report on the conditions as seen in the plate or fluoroscope and allow the internist to correlate his evidence. I differ with Doctor Cathcart regarding the history. I think we ought to know as much of the history of a patient as possible; this should not prejudice us. The history may be taken during the time our eyes are becoming accustomed to the darkened room. A written report should be furnished the internist describing in detail everything learned during the *x*-ray examination.

Dr. Dalton Richardson, Austin: In a study from the cases, we should endeavor to make the best exposure possible. There is nothing to be gained from poorly made stereoplates. We can get more information by exposure made from antero-posterior and postero-anterior of the upper third of chest. Oblique exposures will often give a better view of the hilus shadows than any portion.

Dr. J. B. Johnson, Galveston: I would like to ask Dr. Cathcart if he would make a diagnosis of tuberculosis from one "fan." We believe that the production of "fans" are an early sign of tuberculosis.

Dr. Cathcart (closing): I prefer the *x*-ray diagnosis without the history or other clinical findings, so as to be unbiased. If the report comes in that the patient has a 4 plus Wassermann, I cannot help scrutinizing the hilus too closely; if tubercle bacilli are found in the sputum, too much attention might be given to the apices.

There may be appearance of "fans" and no clinical symptoms; we sometimes see "fans," especially in thin people and the young, and later find that these patients never developed clinical tuberculosis.

The lateral position of Prichard, of Battle Creek, is valuable in examination of the heart but has very little diagnostic value in examination of the lungs for tuberculosis.

Pertussis Bacterin-Mulford (New and Nonofficial Remedies, 1925, p. 354). This is also marketed in packages of one 5 cc. vial, containing 2,000 million killed pertussis bacilli per cc.; of one 20 cc. vial containing 2,000 million killed pertussis bacilli per cc.; and of four vials containing, respectively, 250, 500, 1,000 and 2,000 killed pertussis bacilli per cc. H. K. Mulford Co., Philadelphia.

ASTHENOPIA.*

BY

NEWTON H. BOWMAN, Ph. G., M. D., F. A. C. S.,
WACO, TEXAS.

The word "asthenopia" conveys the idea of weakness, fatigue and pain in vision. It is generally the result of straining some portion of the mechanism of the eye. The vision itself may be normal but the visual act, day in and day out, under certain conditions, may cause the train of symptoms that we call asthenopia. The character of light and other physical conditions have much to do with exaggerating these symptoms.

For purposes of study, asthenopia may be divided into three classes, namely: (1) Accommodative, in which the ciliary muscle, either from refractive errors or from overwork, becomes involved: (2) muscular, in which the muscles controlling the eyes become fatigued and painful, and (3) retinal, in which the eyes are intolerant to light.

ACCOMMODATIVE ASTHENOPIA.

The accommodative, due to fatigue of the ciliary muscle, is one of the most common types of asthenopia. It may develop in a perfectly normal eye, or in one with errors of refraction. It is manifested by an inability to maintain prolonged accommodation without pain or discomfort. The most prominent causative factors are a weak ciliary muscle or excessive use of a normal muscle, most commonly found in hypermetropia, unequal accommodative effort due to astigmatism, unequal effort in adjustment of the visual focus, as in anisometropia, and from diminished ability of the lenses to change their shape as required in presbyopia.

Donders found that hypermetropia was intimately connected with asthenopia. He first thought all cases were due to hypermetropia. For that reason he instilled atropin and paralyzed the accommodation, believing that he could find enough latent error to account for the discomfort. Many of his cases, of course, were relieved, but on the other hand, many of them were not relieved, for the reason that he did not take into account the full relation of accommodation with convergence. Refraction under atropin gives the static refraction and, of course, cannot alter the divergent rays of light proceeding from a near object. Without the knowledge of the added refractive value of an active ciliary muscle, there is no definite means of determining the dynamic refraction of the eye; and further, without the dynamic refraction of the eye in action, the relation existing between accommodation and converg-

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 5, 1925.

ence cannot be determined. Therefore, it is very necessary always to examine an eye following any refraction, whether under atropin or not, dynamically. In other words, the influence that accommodation has upon convergence must be determined and it must be done without atropin. This active inward rotation of the eye is called dynamic convergence.

In the case of a normal eye there is no such thing as static convergence because the primary position of the visual axes is one of parallelism. In a case of convergent squint, however, there is a static convergence according to the length of the deviation. In hypermetropia there is a want of harmony between the accommodation and convergence. In other words, these functions are not developed in either equal or proportional amounts. The required amount of spherical correction may, for a time, cause a great deal of apparent distress because the eyes do not readily adjust to this new state of affairs. It is often discouraging to hear the complaints of the hyperopes following a prescription for the convex lenses required to correct their vision, and to insist that they wear the glasses for a sufficient time to allow the accommodation and convergence to assume proper relations, almost amounts to a riot.

If, after a reasonable period of time, the patient will positively not tolerate the glasses, then it is either a question of using less spheres, continuing with the required amount of spheres with atropin, or using prisms, base in, in case of an insufficiency. In my own practice, I find that the hyperope more often shows an excess of convergence rather than an insufficiency. If the refraction indicates one diopter of convergence there will be one diopter of accommodation. You are sure that there is one diopter of conscious effort and two diopters of spasm, or unconscious effort. The following case is cited in this connection:

Case No. 1—The patient, a male, aged 35, stated that he had a great deal of eye ache and was unable to read any length of time. He was wearing a plus 1.50 sphere on each eye with a small plus cylinder axis 90 degrees, which correction gave him a ten-tenths vision. With this glass, he had an excess convergence of four degrees. The following prescription was the one finally prescribed: O. D. plus 7.50 sph.; O. S. plus 11.50 sph. This correction, with the use of atropin for ten days, gave him normal convergence with ten-tenths vision for distance, without any discomfort whatsoever in reading, and the eye ache was entirely relieved.

In myopia, there can be an excess of convergence without a relative amount of accommodation, as it is known myopes possess very little accommodation. The essayist has frequently found myopes up to five diopters, with a convergence in excess to the rule. This confirms the fact that it is not absolutely necessary to have accommodation in order to have convergence. The following case illustrates this principle:

Case No. 2—The patient, a female, aged 32, with correction of O. U. minus 4.50 sph., combined with plus 2.25 cyl. axis 90, with three meter angles of excess convergence. This case was fitted under atropin, and it was necessary to continue the use of atropin twice a week for about six weeks before the glasses were at all tolerant. At the end of this time she had only one meter angle degree of excess, which she now tolerates with a fair degree of comfort. The amount of plus cylinder is at least one-half a diopter more than her astygmatic error indicated, but it has been the experience of the essayist that it is better to overcorrect with a plus cylinder in these types than to attempt to reduce too much on spheres. The nervous system of an individual and the patient's general health are factors to be considered in accommodative asthenopia.

MUSCULAR ASTHENOPIA.

Muscular asthenopia is due to fatigue of one or both of the extrinsic or the intrinsic muscles of the eye. The two eyes must work harmoniously together. If this interpolated harmony does not exist there is muscle imbalance. It does not necessarily mean there is to be any marked deviation in this function, but the relation in the action of the extrinsic muscles must be in direct accord with the principle of one diopter of accommodation with one meter angle of convergence. (See Fuchs, page 287, 7th edition). The duction of an extrinsic muscle may be taken day in and day out and no error of balance found, and then the accommodation in relation to the convergence may be measured and the error found. Therefore, the necessity of investigating this relation in all cases of asthenopia. The question arises: "What is the best way to investigate such a relation?" One would naturally say to correct all errors of refraction, which include exophorias, esophorias and hyperphorias, insufficiency of the ocular muscles, etc., but that is easier said than done. Every patient coming in for asthenopia, should first have the eyes examined with a definite idea of what the power of accommodation is, according to the age, as it diminishes with age.

In his book, "Hartridge on Refraction," this author describes a test for convergence and divergence. He places a 12-degree prism with its base down in a spectacle frame before one eye, with a P. D. of 60 mm. as a standard. This causes a displacement of the visual axis upwards, and produces vertical diplopia. This test possesses the property of producing diplopia without destroying the fusion sense. This test for distance having been made, and a note made of the amount of divergence or convergence, it is next ascertained whether or not there is any deviation in near vision. There have been various and sundry methods

and instruments devised for measuring this relation between accommodation and convergence. The principle is the same in all. By using any prism of sufficient strength up and down, to produce diplopia, a scale can be made suitable for this test. The Maddox rod can be used, the Maddox prism, and prisms as have been described; but whatever test is made, the relation of one meter angle of convergence for every one diopter of accommodation must exist, or relief will not be complete.

RETINAL ASTHENOPIA.

Retinal asthenopia is usually associated with other forms of asthenopia. It is frequently associated with the accommodative type, and less frequently with the muscular type. In point of importance the retinal type is the one most commonly noted, and is often due to errors of refraction in which the ciliary muscle is overburdened in an act of adjustment. Through the interpolated association of nerve innervation, the internal rectus is stimulated with the same stimulus of accommodation. In order that nerve innervation between accommodation and convergence may be better understood, it is necessary to review certain fundamental facts.

"The basis for comfortable, enduring and undisturbed, binocular, single vision is found only in an undisturbed innervational synergism of physiologically related vision of the binocular visual sense organs." (See American Journal of Physiological Optics, page 350, October, 1920.)

This recitation of facts naturally brings up the question of related functions and the ones that are most concerned in asthenopia, namely, accommodation and convergence. The ability of the eyes to look away *ad infinitum*, focusing parallel rays of light, is well known to every student of optics, therefore, it is not essential to this subject to discuss this aspect further than to say that it is necessary to start with parallel rays of light for distant vision. Any deviation of the optical axes of the eyes requires an act of accommodation. With this act there is a stimulus carried to the internal recti and the eyes converge from the normal visual axes.

It is known that these two functions, accommodation and convergence, are controlled simultaneously, according to the fixed physiologic law, that of one meter angle of convergence of the visual axes to one diopter of accommodation. Any variance in this relation may cause symptoms of eye strain, irrespective of the fact that the visual acuity may be normal for 20 feet. Also symptoms of eye-strain and painful vision may develop with a correction that for all intents and purposes gives normal vision at 20 feet, and good vision for reading.

Retinal asthenopia is the type that is most often found associated with hypermetropia, myopia and astigmatism, which should be properly refracted with the idea of rendering, at the same time, a normal balance of the extrinsic and intrinsic ocular muscles, but such refraction does not always do it. There are other factors to be considered.

It is to be remembered in this connection, that the eyes see things because of light falling upon the retina. If this light be excessive, or if by reason of prolonged exposure to this light, or by reason of any diseased condition, the retina becomes hypersensitive, there is pain in vision. The essayist does not think there is any great difference between excessive light with prolonged exposure on the retina and that of focusing excessive sun rays upon any other part of the body in which irritation is produced. There is a difference in the ocular capacity of one person's eye and that of another (and there must be). These are factors to be seriously considered. And there is a vast difference between the sensitiveness of one person's eye and that of another. One individual's eyes may be able to work with great ease and over a long period of time, under bad lighting conditions; while the individual next to him may suffer intensely under similar conditions. At the same time, comparison must be made with reference to bright lights.

There has been much theory advanced of late years with reference to "power burns" of the eye, and the effect of the ultraviolet ray upon the retina. Both of these involve the question of intensity and quality of light and, clinically, the efficiency of the eye. Long and continued light irritation evidently is a strong factor in producing degenerative changes in the retina and the choroid. I have records of some very definite cases of this type and there has been brought to my mind more forcibly in recent years, the necessity of using such lenses as will modify the light.

Just at this point, I wish to mention the fact that it is not altogether a question of illuminating light, but it is question of reducing the shorter wave lengths. To reduce the light without definite knowledge of its effect is in my judgment, one of the most irrational practices. However, the question may arise, "How would one know to what degree the light should be reduced, if any at all?" In my own practice I use the day light lamp and test out the chromatic value of an eye binocularly. Should a retina be found with a large blue field one may be reasonably sure that the total light value in the lenses prescribed can be reduced; but should this

field be contracted, it is reasonable to suppose (and I find it to be a fact in practice) that not much reduction in the light will be tolerated. Should one find the red and the green fields considerably altered, it is reasonable to suppose that the eye will be more tolerant of more light, but not necessarily excessive light.

To secure the same amount of illumination, artificial light must necessarily be more concentrated and more intense than the natural light. The human eye is constructed with a shutter, called the iris and, through the process of adaptation, it has become more accustomed to natural sources of light than to artificial sources of light. It is known that in natural light the wave lengths are longer than in the artificial types of light. The iris is ever active to light unless there is a diseased condition inhibiting this reaction.

The iris reacts more acutely and more harshly to artificial light than to natural light. Any prolongation of artificial light becomes a constant source of overaction on the part of the iris. The sphincter iridis is the muscle responsible for this contraction. Excessive action on the part of the sphincter sets up a sphincter strain, and it is now believed that in so-called retinal types of asthenopia, the sphincter of the iris has as much, if not more, to do with asthenopia as the retina itself. The faulty lighting conditions of factories, offices and homes may produce all the symptoms of eye-strain that we ordinarily describe under the head of asthenopia; therefore, these conditions are prominent factors in the success or failure of treating asthenopia. After all refractive errors have been corrected and the patient is not relieved, it certainly is well to investigate the conditions of light in which he spends his time for work or for play. For the sake of brevity, the essayist will not discuss the question of light influence further.

TREATMENT.

The question of the remedy is of manifold nature.

1. Cycloplegia is essential in order to determine the static refraction. Especially is this true with regard to hypermetropia, astygmatism and myopia. There is less need for cycloplegia in myopia than in any of the three errors of refraction named, for the reason that the myope does not have a great deal of accommodation. However, convergence may be in excess without accommodation, and it is frequently found that excess of convergence in myopes gives as much trouble as is ordinarily found in hyperopes. It is always important in dealing with an error of refraction, with or without cycloplegia, to know definitely whether or not there is *complete paralysis* of accommodation. A method that I frequently employ (according to Duane) is to place a plus 3 sphere over each eye; and, for example, if the patient sees with three diopters and requires 3.75 for near work, it is reasonably sure that the accommodation is less than one diopter of active accommodation. Another method that I have been accustomed to employ is:

"When the manifest correction in each eye has been obtained and apparently no further relaxation of the accommodation can be secured, put on the glasses found, direct the patient to look with both eyes, and then add to this binocular correction convex glasses by successive increases of plus 0.25 diopters. Patients who have refused to take any further addition in monocular vision, may, when looking with both eyes, be led to accept more convex correction. The addition is made up to blurring.

2. "In presbyopia, it is very necessary to make a test of accommodation. Test each eye separately, because the eyes may be different and any uncorrected difference will result in disappointment. Distance correction may be wrong if the eyes take different additions." (Quoting Dr. Dorcas F. Meadows, Waco, Texas.)

3. Muscle testing is very essential to success, both with the far point and the near point. Excess convergence requires proportionately more plus. Watch this point, especially in reference to presbyopia, because with an insufficiency the reading must be farther away, but if there is excess, the spheres can be piled on with more tolerance. Hyperphorias require vertical prisms. Correct the full amount up to three degrees; when there is more than three degrees, correct only two-thirds of the total.

4. Errors of refraction vary in symptomatology between the child and the adult. A child may tolerate hypermetropia and astigmatism without any distressing symptoms, while an adult would not tolerate the same amount at all. For that reason the essayist does not believe it is so essential to correct small errors of hyperopia and astigmatism in children, as has been formerly taught, unless there are symptoms of eye-strain. Myopia does require accurate correction.

5. The amount and character of eye work under bad conditions, such as spending hours at a "movie," reading on moving trains, automobile riding, proof-reading, and work under artificial light, require moderation before any prescription can relieve asthenopia.

6. When the accommodation and the con-

vergence are out of proportion and there is an error of refraction, correct the error of refraction first and leave the muscle error until a later time, because often the correct refraction will give better balance.

7. The physical and mental state of a patient requires the same attention as the ocular treatment.

ABSTRACT OF DISCUSSION.

Dr. J. M. Woodson, Temple: After giving Dr. Bowman's paper careful consideration, I am in accord with him in his discussion of the classification mentioned in the paper. A large number of cases of asthenopia are embraced in his classification, and when these cases are investigated and treated according to the suggestions given by the essayist, good results may be expected. On the other hand there are a number of cases of asthenopia which are not classified under the subdivision given by Dr. Bowman, which continue to worry and annoy the oculist, regardless of what is done for them. So for the purpose of completeness, I am going to attempt to extend the classification given in the paper to other types of asthenopia.

Ocular arteriosclerosis may be associated with persistent asthenopia, which will be relieved only by general treatment, and these cases are usually more or less complicated and require very thorough investigation as to habits of life, diet, errors of metabolism and special attention to cardiovascular and renal complications. Cases of asthenopia due to chronic conjunctivitis of obscure origin, continue to annoy the oculist with their complaints on account of their resistance to the treatment usually prescribed. As you all know, the conjunctiva may be intensely reddened in many people without their complaining in the least, while in others, who do nothing but annoy the physician with their expressions of discomfort, there is often scarcely any change perceptible in the conjunctiva. This class of patients tell us, too, that they have the sensation of sticks or foreign bodies in their eyes when they attempt to use their eyes to read or for any near work. Their eyes tire very easily, even when they have had their muscular anomalies and errors of refraction corrected and their lives regulated to the best advantage. I confess that I know of no satisfactory method of treatment in handling this type of asthenopia. On the contrary, my experience has been that after I have exhausted the materia medica and have done about everything that is recommended by various text-books, the patients continue to have their symptoms, which often do not amount to an actual pain but a discomfort about the eyes when attempting to use them for near work, a sensation of a foreign body or of moderate burning and pressure.

Neurasthenics often complain of pains located sometimes in the lids, sometimes in the eyes, or behind the eyes or in the head. The discomfort often sets in within a few minutes, sometimes after reading a few lines, while in the disorders of refraction or of the muscles, it does not set in until after a rather prolonged exertion of the eyes. These patients sometimes tell us that the eyes "give out," or that the fatigue may be associated with pain in the eyes, or headache, or redness and burning of the eyelids.

Asthenopia may be a prodromal symptom in the development of glaucoma. This possibility should not be overlooked in making a routine investigation, for while we recognize that glaucoma, in the majority of cases, is a disease of advanced years, I have recently seen two cases of glaucoma developing in patients under the age of twenty. One of these cases came under my observation, and I saw the other case in a patient sixteen years old, when recently visiting in the Wills Hospital.

Asthenopia due to injuries should be included among the possible causes of this disease, for we see quite a number of cases in which we cannot find definite changes, and still the patients complain of great discomfort when they use their eyes. There may be cases of injury, in which anatomical changes are present but escape detection. Some changes may be so minute that they are not demonstrable. Such changes occur in the fovea centralis, due to dazzling from strong light or are produced by small hemorrhages, which have already been absorbed before the patient comes under observation. There may be changes behind the eye, which affect the optic nerve as a result of fracture at the base of the skull.

A careful examination of functions and prolonged observation of such cases, often enable us to clear up the matter, but the real test of an expert are those cases in which there is a question of clear functioning disorders. Such are the cases in which the function of the eye is affected, simply by shock or by psychic commotion that accompanies the injury. Such cases are called traumatic neuroses, and should probably be classed as hysteria. If such cases are expecting compensation on account of injuries received, often it is exceedingly difficult to get their coöperation, and the oculist is often in doubt as to how much real disability the patient may have.

Dr. John H. Burleson, San Antonio: Asthenopia is not a symptom complex; few patients present a majority of the symptoms found necessary to make a diagnosis. Among the symptoms found are headache-pain, fatigue, smarting of the eyes, blurring of vision, photophobia, nausea, mental depression, insomnia, etc. Persistent headache is probably the most common symptom found in asthenopia. The symptoms enumerated are found in an endless variety of combinations. On the amount of enthusiasm with which we tackle a case of asthenopia will depend your result. Many questions still remain unsolved and are subjects of lively debate, and as often happens after the physician in charge has exhausted his skill, the case is referred to the ophthalmologist to cure the persistent headache.

Asthenopia should be divided into three groups: (1) Those cases due to errors of refraction, producing ciliary muscle strain; (2) imbalance of extrinsic muscles, due usually to derangement of the nervous system; and (3) reflex asthenopia, due to pathology in some organ remote from the eye. In dealing with the first two groups, we have a known entity and some basis to work from. Though often difficult, most of these cases can be in a measure relieved.

It is to reflex asthenopia that I would call your particular attention. It has, in my practice, been the most difficult to handle; at times a hopeless situation. For some years I have given this subject considerable thought, and have formed some very definite conclusions. I believe that reflex asthenopia is caused from some disturbance of the sympathetic nervous system, at times, some pathology in the pelvis. This conclusion is strengthened by the fact that women are more often the sufferers and that they also have more pelvic pathology. Intraocular pressure, either plus or minus, plays an important part in reflex asthenopia. Many of you can recall asthenopic patients who have consulted you following surgical procedures, especially in the pelvis. I do not believe this type of patient is ever benefitted by refraction, unless they happen to combine some muscular eye trouble with the reflex irritation.

This is a subject of such tremendous scope, it would be impossible in a single paper or discussion to treat of more than one phase. Dr. Bowman has discussed the muscular causes of asthenopia and has brought out some very important points. I would like to emphasize one of his points—that accommodation and convergence must work together, or your glasses will do no good.

Dr. Seth M. Morris, Galveston: This subject of eye-strain is of greatest importance, but I believe that the conceptions of most of us, and also of the laity, concerning the way in which tinted lenses act in relieving eye-strain, are erroneous. It is almost universally contended that the ultraviolet rays in sunlight are harmful to the eyes. When exposed to light sources extremely rich in ultraviolet radiations, such as an electric welding arc or a mercury vapor lamp, the eyes may be greatly irritated, especially the conjunctiva, or even actually injured; but sunlight is not so rich in these rays, for the air is to them quite opaque; and to get much therapeutic effect from the sun's ultraviolet radiations (as in the treatment of rickets, for example), it is necessary to seek high altitudes, such as the tops of high mountains.

Glass in general is quite opaque to these radiations, which is the reason why specifically transparent material, such as fused quartz, is necessary in the manufacture of ultraviolet lamps. Also, the lens of the eye is highly opaque to ultraviolet radiations, which constitutes a further protection to the retina.

I, therefore, believe that when we prescibe a tinted lens, no matter of what kind—Crookes, Noviol, Euphos or amber, and it gives relief, it is not because of the exclusion of the ultraviolet light in sunshine; but it is due to the reduction in the total amount of light, which is dazzling and irritating to some people, especially when they are suffering from uncorrected refractive errors. I do not believe that any experimental evidence has ever been brought forward to prove that the amount of ultraviolet light which reaches the retina under ordinary conditions of living, protected as it is by the air, the lenses worn—even if of nontinted glass—and the crystalline lens, is harmful. Arguments that the sun's ultraviolet rays are harmful to the eyes have commercial value, as shown by recent advertisements in national magazines. People are thereby induced to purchase expensively advertised special tint lenses, when the cheaper types are fully as effective.

Dr. Ray Daily, Houston: There is one form of asthenopia that has not been emphasized, and that is an asthenopia which is a purely psychic disturbance. These patients come with all the symptoms of eye-strain, and yet a most painstaking examination reveals nothing to account for their symptoms, or a refractive error so low that it is altogether out of proportion to the patient's complaints. Most of us in a case like this prescribe glasses, or change the glasses that the patient has. Not a particle improved, the patient consults someone else and makes the round of the oculists, and then very often goes on to an optician. This class is made up of students at examination time, business men about to fail in business, and women at the menopause.

A curious case was that of a woman at the menopause, a myope, who came to me with a collection of glasses, in which was represented the effort of almost every oculist in the city, all the prescriptions varying but little; mine was another failure added to the long list. She consulted Dr. Fuchs, who was at that time delivering his course of lectures in Houston, and he advised her to do without glasses; this opinion being contrary to all those that she had had before, she promptly lost confidence in him. I believe that for the sake of the confidence which the public has in us, and which we wish to keep, it would be wiser in a case like this, to explain to the patient that his trouble is not due to the eyes, and send him to a neurologist.

Dr. Bowman (closing): I would emphasize all the points that have been brought out, and wish to thank the Section for the free discussion of the subject.

MISCELLANEOUS

BUTTER VERSUS OLEOMARGARINE.

To the Editor:

On March 12, 1924, an outbreak of typhoid at Lincoln Memorial University Tennessee, caused an exodus. L. L. Lumsden, Surgeon, U. S. P. H. S., was summoned, and located the trouble in the insanitary surroundings of one of the dairies. In the course of of the inquiry, it developed that the students in the mess hall, instead of being supplied with brain-building butter, were fed on oleomargarine, which contains only one volume of vitamin, and not that, if it has been cooked.

It is difficult to understand why an institution calculated to increase intelligence; where the scholars are assembled for the purpose of imparting knowledge to them, should put them on a diet devoid of the best elements for that purpose, or withhold the brain-building element nature furnishes.

Instead of a temporary exodus from such a college, it ought to be shut up permanently, until its board of control learn that bull butter don't build brains.

ALEX W. ACHESON. M. D.,
Denison, Texas.

OLIVER-REA FOUNDATION SCHOLARSHIPS.

Scholarships on the Oliver-Rea Foundation for graduate study in medicine are available at the New York Postgraduate Medical School and Hospital. Inquiries should be addressed to the Dean, 301 East Twentieth Street, New York City.

POLAND PLANS TUBERCULOSIS CAMPAIGN.

Dr. C. Karwowski, of Poland, chief of laboratory of Bialtystok, who is visiting various health agencies in the United States under the auspices of the Rockefeller Foundation, is making a special study of the organization and administration of tuberculosis work in the Department.

On his return to Poland he will organize a campaign against the disease in a number of districts of that country.—*Health News* (N. Y.).

U. S. CIVIL SERVICE EXAMINATION.

The United States Civil Service Commission announces the following open competitive examination: Junior Medical Officer; Assistant Medical Officer; Associate Medical Officer; Medical Officer; Senior Medical Officer.

Applications for the positions listed above will be rated as received until December 30. The examinations are to fill vacancies in various branches of the Government service.

For positions in the departmental service at Washington, D. C., the entrance salaries are: Junior medical officer, $1,860 a year; assistant medical officer, $2,400 a year; associate medical officer, $3,000 a year; medical officer $3,800 a year, and senior medical officer, $5,200 a year. Advancement in pay may be made without change in assignment up to $2,400 a year for junior medical officer, $3,000 a year for assistant medical officer, $3,600 a year for associate medical officer, $5,000 a year for medical officer, and $6,000 a year for senior medical officer.

For positions in the field services appointments may be made at the salaries stated above or at higher or lower salaries, the entrance salary depending upon

the qualifications of the appointee as shown in the examination and the duty to which assigned.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

TREATMENT OF GENERAL SEPTICEMIA BY GENTIAN VIOLET AND MERCUROCHROME-220 SOLUBLE.

By inducing staphylococcic septicemia in the rabbit, W. D. Gatch, H. M. Trusler and J. E. Owens, Indianapolis *(Journal A. M. A.*, Sept. 19, 1925), have approximated the conditions in which the clinician undertakes the intravenous use of gentian violet and mercurochrome. Furthermore, because of its constant fatality in the rabbit, the treatment of this infection constitutes a crucial test of the drugs. From these experiments it appears that gentian violet and mercurochrome, when injected in safe doses into the blood stream of rabbits with staphylococcic septicemia, do not accomplish a therapia sterilisans magna. A large dose of either drug injected in the presence of an overwhelming infection may hasten death. Either drug, when properly employed, will exert a temporary bacteriostatic action in the blood stream. The ultimate benefit to be derived from this retardation of the infection depends on the resistive powers of the animal.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Insulin-Squibb 10 Units, 10 Cc.—Each cc. contains 10 units of insulin-Squibb (New and Nonofficial Remedies, 1925, p. 174). E. R. Squibb & Sons, New York.

Insulin-Squibb 20 Units, 10 Cc.—Each cc. contains 20 units of insulin-Squibb (New and Nonofficial Remedies, 1925, p. 174). E. R. Squibb & Sons, New York.

Insulin-Squibb 80 Units, 10 Cc.—Each cc. contains 80 units of insulin-Squibb (New and Nonofficial Remedies, 1925, p. 174). E. R. Squibb & Sons, New York.

Neo-Silvol Ointment 5 Per Cent.—An ointment composed of neo-silvol (New and Nonofficial Remedies, 1925, p. 379), 5 per cent in a base composed of glycerin, benzoinated lard, hydrous wool fat and petrolatum. Parke, Davis & Co., Detroit.

Mercurosal Solution. — Each cc. contains mercurosal (New and Nonofficial Remedies, 1925, p. 234), 0.025 gm. (5/13 grain), in distilled water containing 0.1 per cent of sodium citrate. Parke, Davis & Co., Detroit.—*Jour. A. M. A.*, Sept. 5, 1925.

Tetraiodophthalein Sodium. — Tetraiodophenolphthalein sodium. The sodium salt of a dibasic dye, tetraiodophenolphthalein. Tetraiodophthalein sodium contains not less than 53 per cent of iodine. It is used for the röentgenologic examination of the gall-bladder. Following the intravenous injection or, if decomposition is avoided, the oral administration, the substance appears in the normal gallbladder in sufficient concentration to cast a shadow to the röentgen ray. The use of tetraiodophthalein sodium is in the experimental stage and workers are cautioned as to the selection of types of cases in which it is indicated and its possible toxicity in large doses.

Iodeikon.—A brand of tetraiodophthalein sodium-N. N. R. It is supplied in bulk and in 3.5 Gm. ampules. Mallinkrodt Chemical Works, St. Louis.

Tetraiodophthalein Sodium-"National."—A brand of tetraiodophthalein sodium—N. N. R. It is supplied in bulk and in 3.5 Gm. vials. National Aniline and Chemical Co., New York.—*Jour. A. M. A.*, September 26, 1925.

PROPAGANDA FOR REFORM.

Zinc Stearate Poisoning.—The effects produced by the aspiration of zinc stearate consist in the production of an acute disturbance of the bronchi and lungs. The cases that have been reported can be divided into several types: (1) The fulminating variety composes one group, in which the onset is sudden and stormy, with rapid respiration and cyanosis. (2) In another group acute bronchial pneumonia develops. (3) In the third group of cases the course of the illness is brief. It has been shown experimentally that the inhalation of zinc stearate produces interstitial pneumonia and peribronchitis. Manufacturers should be prohibited from selling the powder in its present form: a self-closing container should be insisted on.—*Jour. A. M. A.*, Sept. 12, 1925.

The American Association for Medico-Physical Research.—This is another society catering to the twilight zone of professionalism. It recently held what is claimed to be its fourteenth annual convention. Little appears to have been heard of this organization until three years ago when the Albert Abrams fakery was at its zenith. In the meeting held that year, no small time was devoted to the "Electronic Reactions of Abrams." The Medical Association for Medico-Physical Research was organized in 1911 by the outstanding quack of the century —Albert Abrams. It was originally known as the American Association for Spondylotherapy. From a study of the records of some of those whose names appear on the program of the society's annual meeting about to be held, it should not be difficult to judge the probable scientific status of the American Association for Medico-Physical Research.—*Jour. A. M. A.*, Sept. 19, 1925.

Digestive Enzyme Therapy on the Wane.—Not so very many years ago, many physicians would have considered it a handicap to be deprived of the use of digestive enzymes in their daily prescribing. Even the most conscientious, while resisting the alluring color and pleasing taste of a widely advertised elixir claimed to contain pepsin, pancreatin and diastase, nevertheless gave pepsin in certain conditions, diastase in others and in cases of supposed pancreatin deficiency, pancreatin in the hope that the latter would safely reach its destination and have some action. Today a vast majority of clinicians make little or no use of digestive enzymes. The report of W. A. Bastedo on the use and utility of digestive enzymes summarizes the replies to a questionnaire submitted at the request of the Council on Pharmacy and Chemistry to the members of the American Gastroenterological Association and brings out forcibly that gastric ferments are considered of minor importance in therapeutics. The report fully justifies the estimate of the Council on Pharmacy and Chemistry which states in the chapter on digestive enzymes in New and Nonofficial Remedies that the utility or need for the internal administration of digestive enzymes is problematic. The Bastedo report is additional evidence of the untiring efforts of the Council to supply the medical profession with up-to-date and impartial information in regard to the actions and value of drugs.—*Jour. A. M. A.*, Sept. 19, 1925.

NEWS

Leonard Prize Awarded St. Louis Physician.—The American Röentgen Ray Society has awarded to Dr. Everts A. Graham of St. Louis, the Charles Lester Leonard prize of $1,000 for the most valuable service during the last year in the field of *x*-ray develop-

ment. The award, announced at the society's annual meeting, was given for Dr. Graham's development of a process, known as cholecystography, making possible by *x*-ray accurate diagnosis of gall-bladder and other intestinal disorders.—*Dallas News.*

Supervising Nurse for Fort Worth was officially appointed by Dr. L. H. Martin, Director of Public Health and Welfare, the position being accorded to Miss Margaret Cunningham of Dallas. She will assist Dr. Martin in the selection of six full-time nurses to be assigned to the six districts into which the city is to be divided for sanitary purposes.—*Dallas News.*

Fort Worth Epidemiologist Appointed.—Dr. J. A. Little, formerly of the Epidemiological Bureau of the Texas State Health Department, has been appointed by Dr. L. H. Martin, director of health and welfare, as epidemiologist for the city of Fort Worth. Dr. Little was raised in Marshall, Texas, and graduated from the Medical Department of the University of Texas, and has had a number of years' experience in public health work. He was formerly connected with the health department of Wichita Falls and during the war served as sanitary inspector at Camp Travis.

National Board of Medical Examiners announces that two additional states, Connecticut and Utah, have agreed to accept its certificates qualifying physicians to practice medicine in those states. This certificate is now recognized in more than 30 states and Great Britain.

The following members of the Executive Committee were in attendance at the meeting of October 3rd: Dr. Horace D. Arnold, President of the Board; Major General M. W. Ireland of Washington, Surgeon General of the United States Army; Rear Admiral E. R. Stitt of Washington, Surgeon General of the United States Navy; Dr. J. S. Rodman of Philadelphia, Secretary of the Board; Dr. Walter L. Bierring of Des Moines, Iowa, and Everett S. Elwood, Managing Director of the Board.

The results of the Board's June examinations were announced as follows: These examinations were held at 30 medical schools throughout the country, including Harvard, Cornell, University of Chicago, Tulane, University of Texas, Washington University, University of Minnesota, University of Oregon, University of California, and the College of Medical Evangelists. A total of 508 candidates were examined, the largest number ever to take the Board's written examinations. One hundred and thirty-eight candidates took Part III of the Board's examinations, which consisted in a practical and clinical test and the final examination, and 130 passed successfully.

Ralph Lichenstein of the Jefferson Medical College, Philadelphia, earned the highest number of credits, securing 394 out of a possible 425. Euclid P. Ghee of Harvard University College stood second with 392.3 credits.

SOCIETY NEWS

Bowie County Medical Society met September 25, at Texarkana, with a large attendance.

Mrs. Virginia Misenheimer, representative of the Arkansas Tuberculosis Association, gave a brief address on the history of that organization and its aims and purposes. At the close of her address, a resolution was unanimously adopted pledging the coöperation of the Society with the Arkansas Tuberculosis Association.

Dr. W. T. Holt, City Health Officer of Little Rock, Arkansas, made an address on "Tuberculosis and Its Characteristic Symptoms."

Dr. C. A. Smith read a paper on "Angioneurotic Edema," which was discussed by Dr. George A. Hays.

Cooke County Medical Society met at the nome of Dr. and Mrs. O. E. Clements at Gainesville with the following in attendance: Drs. E. C. Meade, J. M. Wattam, C. B. Thayer, R. C. Whiddon, D. M. Higgins, I. N. Roberson, W. J. Price, O. E. Clements, T. F. Chandler and L. W. Kuser of Gainesville; W. C. Cunningham of Dexter and Dr. and Mrs. Edwin Davis of Fort Worth.

Dr. Edwin Davis of Fort Worth, made the principal scientific address.

Mrs. Clements, assisted by Mesdames Emmett Cheek and Will Bassinger, served the society with delightful refreshments.

Dallas County Medical Society met August 27 on Mrs. Rembart's lawn, with 38 members present.

Dr. Geo. L. Carlisle reported the case of a negro girl 12 years of age with chronic syphilitic meningitis, the unusual feature of the case being that her spinal fluid contained 2100 white cells to the field. Both spinal fluid and blood Wassermanns were positive, and the direct smear was negative.

Dr. J. B. Smoot read a paper on "Periarterial Sympathectomy, With Report of Cases," which was discussed by Dr. J. Spencer Davis.

Dr. C. R. Hannah read a paper on "Prevention of Still-Birth," which was discussed by Drs. Bourland and Austin.

Dr. Carlisle, speaking in behalf of the Publicity Committee, urged subscriptions for the campaign.

Dr. C. M. Rosser made an announcement of the meeting to be held in Fort Worth on September 2, in the interest of the Educational Campaign, and reported in detail the progress made in the enforcement of the Medical Practice Act. A motion was carried to accept the invitation to meet with the Tarrant County Medical Society.

Dallas County Medical Society met in regular session on September 10 in the auditorium of the Medical Arts Building, with 23 members present.

Dr. H. I. Gosline reported some interesting examples of cases that are being sent him at the Child Guidance Clinic.

Dr. Guy T. Denton reported the case of a boy about 16 years old, with a gangrenous ruptured appendix. Pelvic abscesses formed and were lanced, and a resection of the intestines was done, but the side continued to drain. The patient died after an illness of three months.

Dr. G. T. Reuss of DeWitt County Medical Society was elected to membership on transfer.

Dallas County Medical Society held its Annual Clinic at the various hospitals, September 8-10, and more than 100 doctors, including a large number of visitors were in attendance.

Dr. W. H. Moursund, dean of Baylor University Medical College, was in charge of the first day's program, held at Baylor Hospital. Those appearing on the program were: Doctors C. M. Rosser, Elbert Dunlap, G. M. Hackler, A. B. Small, Sam Webb, Mark E. Lott, C. W. Flynn, W. W. Shortal, E. H. Cary, C. M. Grisby, D. W. Carter, Jr., R. B. McBride, J. J. Terrill, Guy Witt, H. M. Winans, George L. Carlisle and Bedford Shelmire.

On the following day, the Clinic was held at Parkland Hospital with Dr. J. B. Smoot in charge of the program. The following doctors participated in the program:

Drs. J. R. Smith, Ben R. Buford, Frank Harrison, J. H. Marshall and L. C. Ellis.

On the 10th, Dr. F. A. Pierce had charge of the program at St. Paul's Sanitarium with the following doctors participating: Drs. Jack F. Perkins, R. S. Usry, R. H. Milwee, Roy L. Keller, J. M. McLeod and Howard Cecil.

DeWitt and Lavaca County Medical Societies met in joint session at Yoakum, September 16. After an

enjoyable dinner at the St. Regis Hotel, the society adjourned to the Elks' Club Hall, where the following scientific program was had:

"The Present Status of Basal Metabolic Determination," by Dr. Moise D. Levy, of Houston; "Prolapse of the Rectum," by Dr. J. C. Alexander, of Houston; "Use of Radium in Malignancy of the Face," by Dr. O. L. Norsworthy, of Houston; "The Value of Ureteropyelo-cystography in Urologic Diagnosis," by Dr. Rex R. Ross, of San Antonio; "Operative Treatment of Toxic Goitre," by Dr. J. G. Burns, of Cuero.

The following doctors were present: M. D. Levy, J. C. Alexander and O. L. Norsworthy of Houston; R. R. Ross, C. E. Scull, W. H. Cade, J. W. Goode, Lee Rice and R. G. McCorkle of San Antonio; W. T. Dawe and George Holmes of Gonzales County; W. T. Wood, Jr., J. V. Hopkins of Victoria County; E. W. Marek, J. Weiss, J. Guenther, C. L. Kopecky, C. T. Dufner and E. W. Shercliff of Lavaca County; H. C. Eckhardt, R. M. Milner, J. W. Hale, H. H. Brown, Sr., H. H. Brown, Jr., G. W. Cross, J. C. Dobbs, J. W. Burns, J. G. Burns, J. H. Pridgen, L. W. Nowierski and B. J. Nowierski of DeWitt County.

The next joint meeting of the two societies will be held at Cuero, October 28.

Ellis County Medical Society met at Ferris, Texas, September 15, as guests of Dr. and Mrs. A. T. Hampton. The meeting took place in the First Methodist Church, in the basement of which an attractive luncheon was served. Twenty-five members and 10 visiting doctors were present, beside the members of the Woman's Auxiliary. Dr. A. T. Hampton, President of the Ellis County Society, presided. After the luncheon, the following interesting program was enjoyed: Reading, Mrs. William Pierce; "Synergistic Anesthesia," Dr. F. A. Pierce; reading, Mrs. W. E. Stainback; "Why We Believe," Dr. Geo. L. Carlisle, Dallas; "Message from Our State President," Dr. C. M. Rosser, Dallas; "Message from Our State Secretary," Dr. Holman Taylor, Fort Worth.

El Paso County Medical Society met September 7, with 34 members and 15 visitors present.

Dr. A. J. Paccini, Chief of the Department of Bio-Chemistry for the Victor X-Ray Corporation, made an address on the Ultra-Violet Rays. He presented some very interesting statistics in both biology and physics, in bringing out the discovery of the ultra-violet ray. He also presented some case histories in which the ultra-violet ray has made some remarkable cures. This was a very interesting lecture and very much enjoyed by the society.

El Paso County Medical Society met September 14, with 31 members and 4 visitors present.

Dr. E. J. Cummins presented a paper on "Sterility." Dr. Cummins brought out the value of careful examination in these cases, and emphasized the fact that the cause of sterility in a large number of cases is probably hereditary, and that at the present time the best results are probably not obtained by surgery. The paper was discussed by Dr. Cathcart.

Dr. W. L. Brown reported a case of tularemia. Dr. Brown had checked this case up very thoroughly, and confirmed the diagnosis by laboratory test—this probably being the first case reported in Texas. The case was discussed by Drs. R. A. Wilson and Irving McNeil.

El Paso County Medical Society met September 21, with the following members present: Doctors McNeil, Duncan, Cummins, Vandevere, Prentiss, Strong, Vernon, Rogers, Cathcart, Sharo, Jamieson, Kinnard, Wilson, Casellas, Johnson, Miller, Laws, Waite, Hardy and Homan. Visitors present were: Dr. Young of St. Louis; Majors Wright, Scott and Hague, and Ralph Homan.

Dr. P. R. Casellas read the paper of the evening, "X-Ray Studies of Lesions in the Upper Right Quadrant," which was discussed by Drs. Cathcart, Prentiss, Miller, and Major Wright.

Two cases of foreign bodies, one a Mexican coin in the esophagus and the other an ordinary tack in the right bronchus, were presented by Dr. W. E. Vandevere. The foreign bodies were removed by him and both patients have entirely recovered.

Hale-Floyd-Briscoe-Swisher Medical Society met September 8, at Plainview, with the following doctors in attendance: Drs. J. C. Anderson, D. P. Jones, C. A. Cantrell, C. C. Gidney, E. L. Dye, E. O. Nichols, W. E. Redford and E. F. McClendon, Plainview; Drs. J. E. Crawford, W. A. Morrow and M. J. Shaw, Tulia; and Drs. S. J. Underwood and A. L. Lincecum, Hale Center.

Dr. J. C. Anderson delivered an address on medical technic as practiced in Edinburgh.

Dr. C. C. Gidney gave an interesting report of the recent meeting of the Committee on Publicity and Enforcement at Fort Worth. This meeting was presided over by President Dr. C. M. Rosser, who made an address introducing the Honorable Dan Moody, Attorney General of Texas, who spoke at length on the enforcement of the Medical Practice Act. Dr. Holman Taylor also made an address along similar lines, and introduced the Honorable M. A. Magee, Adjutant General of the State of Texas, who in a speech full of witticisms, denounced the quacks who impose upon the sick public and pled for enforcement of the Medical Practice Act. All of these addresses were radiocast over the *Star-Telegram* Station, WBAP—the Dallas News Station, WFAA, courteously allowing the Star-Telegram station to use their time, also.

Harris County Medical Society met September 5, with 25 members present.

"A World Travelogue" was given by Dr. S. C. Red. After Dr. Red had given his 50-minute talk, a motion was carried that the time be extended to two hours, but Dr. Red refused.

Dr. George Cooke spoke on the printed report of the House of Delegates of the last Annual Session of the State Association. Dr. Hargrove moved that it is the sense of this society that the action of the State Medical Association in adopting the new Constitution was illegal, which motion was seconded by Dr. John L. White. Dr. John Foster moved to table this motion. The rising vote was 12 for and 12 against the motion. The president voted to table the motion. Dr. Cooke then spoke on the question of the Board of Councilors muzzling the official organ of the society, *The Medical Records and Annals*, and also discussed the question of the dues. No action was taken on either matter.

Harris County Medical Society met September 12, with 59 physicians present. The meeting was called to order by the President, Dr. A. H. Flickwir.

Dr. A. J. Pacini, of Chicago, gave an address on "Some Physiological Aspects of Physiotherapy," which was discussed by Drs. W. B. Thorning and F. B. King.

Dr. W. G. McDeed read a paper on "X-Ray Treatment of Furunculosis of the Face," which was discussed by Drs. G. C. Lechenger, W. O. Sauerman, C. P. Harris, C. U. Patterson and A. J. Pacini. The discussion was closed by Dr. McDeed.

Harris County Medical Society met September 19, with 40 physicians present.

Under Timely Clinical Cases, the Secretary, Dr. F. J. Slataper, reported the case of "Dr." A. J. Pacini, as written under the caption of Nostrums and Quackery in the *Journal of the A. M. A.*, September 19, 1925.

Dr. M. D. Levy read a paper on "The Value of Basal Metabolism," which was discussed by Drs. C. U. Patterson, Paul V. Ledbetter, F. B. Smith and E.

W. Applebee. The discussion was closed by Dr. Levy.

Dr. O. L. Norsworthy read a paper on "Radium Treatment of Epidermoid Cancer" (with lantern slides), which was discussed by Drs. F. B. Smith, Louis Daily, J. F. Gamble, F. J. Slataper, and the discussion was closed by Dr. Norsworthy.

McLennan County Medical Society met September 8, with Dr. W. A. Wood in the Chair, Dr. I. Warner Jenkins being the Secretary.

The following scientific program was rendered: "Symptoms of Early Goiter, and Differential Diagnosis," Dr. H. F. Connally; "Modern Views on the Etiology of Thyroid Diseases, and Treatment of the Different Types," Dr. F. W. Hoehn; "X-Ray Treatment of Hyperthyroidism," Dr. I. W. Jenkins; "Indications for Operation in Thyroid Diseases," Dr. C. L. Goodall; and "The Goiter Patient as An Insurance Risk," Dr. Carl Lovelace.

Navarro County Medical Society met at the Chamber of Commerce at Corsicana, September 7, with the following members in attendance: Drs. I. N. Suttle, J. Wilson David, A. D. Sanders, W. W. Carter, E. P. Norwood, R. C. Curtis, S. H. Burnett, W. R. Sneed, H. B. Jester, D. B. Hamill, E. H. Newton, Gurley Sanders, B. F. Houston, M. L. Hanks, E. B. Ellis, W. O. McDaniel, W. D. Cross. H. H. Panton, H. R. McMullen, P. S. Russell, T. S. Slater, T. O. Wills, W. W. Halbert, Hugh Carter, W. T. Shell, and Drs. C. M. Grigsby and C. Frank Brown of Dallas.

Dr. C. M. Grigsby of Dallas, read a paper on "Hyperthyroidism, or Myxedema." He showed a number of lantern slide photographs of cases of hyperthyroidism, demonstrating the result of thyroid extract treatment. He stated that a number of cases of hyperthyroidism of mild degree are undiagnosed.

Dr. C. Frank Brown of Dallas, read a paper on "Diabetes Mellitus." He stated that the diagnosis of this disease should not rest on one examination, and stressed the importance of examination of the blood sugar. He discussed the insulin treatment and warned that insulin had not supplanted careful dietary treatment, but that the diet was just as important with insulin as *without* it. Both papers received a liberal discussion.

Following the scientific program, a round table discussion was entered into concerning the recent called meeting of the Advisory Council at Fort Worth, which was known as the Dan Moody Dinner, the dinner being given in the Crystal Ball Room of the Texas Hotel in honor of the Attorney General of Texas, who was the principal speaker on this occasion. His address on the importance of the enforcement of the Medical Practice Act was radiocast over Station WBAP, through the courtesy of the *Fort Worth Star-Telegram* and the *Dallas News*—the latter paper's station, WFAA, allowing the *Star-Telegram* to use their time in order to radiocast the entire program.

Potter County Medical Society met September 14, with the following doctors present: A. J. Caldwell, C. T. Vineyard, S. P. Vineyard, E. A. Johnston, L. V. Dawson, L. K. Patton, J. R. Wrather, M. L. Fuller, A. H. Lindsay, J. J. Crume, R. S. Killough, A. F. Lumpkin, W. H. Flamm, A. E. Winsett, R. M. Bennett, E. T. Dunaway, Neal Hall, H. D. Whittington, R. D. Gist, H. H. Latson, Richard Keys, I. Rasco, B. M. Puckett, W. Van Swearengen, Guy Owen, Robberson, Wolfram, M. A. Biggars, Sam R. Griffin, and W. N. Wardlaw.

Mr. Ewing of the "Daily News" was present, and gave an interesting talk on advertising by the medical profession.

Dr. W. N. Wardlaw of Childress, read a paper on "Surgery of the Abdomen," the paper stressing especially the importance of accurate diagnosis; however, it was the author's opinion that after the surgeon is convinced from an examination that some abdominal organ is involved and that the case is a surgical one, he is justified in operating. The paper was liberally discussed.

Dr. E. A. Johnston read a paper on "Comparison of Practice of Medicine 75 Years Ago and Now." This paper was unique in that the essayist gave his personal experience in youth followed up by his 50 years of active practice, and noting the wonderful improvement in the practice of medicine taking place within that time. The paper was freely discussed.

The motion was carried that every member of the society be assessed $10.00, to be used in employing additional counsel to assist the County Attorney in the prosecution of illegal practitioners of medicine.

After the business of the society had been transacted, the society adjourned to the home of Dr. L. K. Patton, where refreshments were served by the Woman's Auxiliary.

Tarrant County Medical Society met on the lawn of All Saints Hospital, September 10, 1925. This meeting was open to the general public.

Rev. E. H. Eckel addressed the society upon invitation. He briefly sketched the history and purposes of All Saints Hospital.

Dr. Clayton next explained the purpose of this meeting and introduced Dr. C. H. Harris, who discussed the City-County Hospital and free clinic situation in Fort Worth. He pointed out the growth of hospitalization since 1906, and how that this growth was yet inadequate for a city the size of Fort Worth, as shown by comparison of population and the present number of hospital beds. He reported that 89 insane patients had been treated as criminals in the county jail because no proper place was available for their care. He then discussed in detail the present City-County Hospital facilities and cost per capita for operation. He cited the charity hospital facilities of San Antonio, Wichita Falls, San Francisco, and other cities. He said this city should have a hospital of 300 beds, with modern equipment throughout, so that the diagnosis of a case could be complete. He thought that the present plan of the doctors giving their services to the city was wrong and that the city should pay the doctors for their services, since the former plan penalizes the medical profession, and that he wanted to go on record as being in favor of a bond issue, in the future, large enough to build and equip a million dollar City-County Hospital.

Dr. M. E. Gilmore next discussed the tuberculosis situation in Fort Worth, pointing out that the city is directly open to any kind of an epidemic at any time, and that the tuberculosis conditions are especially deplorable. No accurate data is available since many patients walk the streets without treatment. The last survey showed 500 cases, and all agree that this was short of actual figures. He exhibited a map showing the distribution of tuberculosis in Fort Worth, there being 428 cases in all, as shown on the map. He stated that the Tarrant County Tuberculosis Association only carried on an educational work, no attempts at nursing being made, there being no hospital beds for any tuberculosis patients, except for shacks at the County Home where the patients have to take care of themselves, and that it takes 3 or 4 weeks to get patients admitted even to this place. Other cities have a bed for every tuberculosis death during the year; Fort Worth has none. He said in conclusion that he hoped that available beds would soon be provided for such patients in the City-County Hospital of Fort Worth.

Dr. Frank S. Schoonover was the next on the program, and he read a paper on "The Treatment and Control of Venereal Diseases." He sketched the history and origin of venereal diseases and the serious economical consequences following their complica-

tions. He cited the prevalence of prostitution in Fort Worth and also the prevalence of venereal diseases, and then gave his recommendations for the control of the situation.

A general discussion of these addresses was opened by Dr. W. R. Thompson and Dr. Martin, City Health Officer.

Tarrant County Medical Society met September 17, on the lawn of the City-County Hospital.

Mr. George Kelly was introduced by the president and demonstrated a patent sterilizer used for sterilizing all soda fountain glasses, hotel dishes, etc. The Secretary was instructed by the society to write a letter of indorsement for Mr. Kelly.

Dr. Clayton next introduced Dr. A. J. Pacini, who addressed the society on "Ultraviolet Therapy," explaining the facts upon which physiotherapy is based and tracing their origin back to the creation of the universe. The address was intensely interesting and enjoyed by all present.

Delicious punch was served by the hospital management, after the program was completed.

Tarrant County Medical Society met in special session, September 30, with about 20 members present.

Dr. Clayton explained the motive for calling the meeting and introduced Mr. Jed Morrow, of the State Medical Association, who explained the plan for prosecution of illegal practitioners as advised by the State Association. The question of educational advertising was explained and general discussion by Drs. W. R. Thompson, D. R. Venable, L. A. Suggs, L. O. Godley, P. L. Hooper, J. B. Cummins, Holman Taylor, S. H. Moore and S. J. R. Murchison, followed.

A Public Relations Committee of five members, with the president and secretary as ex-officio members, was appointed to carry out the plans for a campaign of publicity and of prosecution of quacks in Tarrant County.

Van Zandt County Medical Society met at Canton, September 4, with 7 members present.

Dr. Felix V. Bryant read a paper on "The Use of Pituitrin Tablet Form, in Labor."

Dr. Ben B. Brandon read a paper on "Do You Know?"

Williamson County Medical Society met at Georgetown, September 9, with Dr. W. C. Wedemeyer of Walburg, as acting president.

The following members were present: Drs. Y. F. Hopkins, J. J. Johns and W. L. Helms of Taylor; Dr. C. H. Crawford, Jarrell; Dr. G. D. Ross, Liberty Hill; Dr. G. W. Stevens, Leander; Dr. W. C. Wedemeyer, Walburg; Dr. D. B. Gregg, Round Rock, and Drs. J. R. Martin, W. M. Schultz and W. G. Pettus, Georgetown.

Dr. W. M. Schultz of Georgetown, reported an interesting clinical case of bichloride of mercury poisoning with recovery, which was discussed by Drs. C. H. Crawford, J. R. Martin, G. W. Stevens and Y. F. Hopkins.

Dr. H. A. Scott of Austin, read a paper on "Shoe Dye Poisoning," which was discussed by Drs. D. B. Gregg, W. M. Schultz, W. L. Helms and Y. F. Hopkins.

The society was invited by Dr. Hopkins to hold their next meeting at Taylor. The invitation was adopted by unanimous vote of the society.

Northwestern District Medical Association met at Weatherford, September 15 and 16, with over 50 physicians in attendance. The registration headquarters were at the Hotel Parker. The morning of the first day, the visiting doctors were entertained with a luncheon at the Hotel Parker by the Weatherford Rotary Club.

The following scientific program was had: "Chairman's Address" (Surgical Section), by Dr. S. C. Richardson of Dallas; "Stricture of Esophagus, with Complete Occlusion—Case Report," Dr. J. B. Nail of Wichita Falls; "Diathermy as An Aid in Surgical Cases," by Dr. C. D. Cupp of Breckenridge; "Clinical Case Reports," by Dr. R. V. Smith of Tulsa, Oklahoma; "Perineal Prostatectomy" (with moving pictures), by Dr. H. L. Cecil of Dallas; "Early Diagnosis of Cancer of the Rectum" (with lantern slides), by Dr. Curtice Rosser of Dallas; "Cancer of the Rectum—Some Phases of Diagnosis and Treatment," by Dr. G. V. Brindley of Temple; "Chairman's Address" (Gynecological Section), by Dr. T. H. Parmley of Electra; "Medical Gynecology," by Dr. L. Mackechney of Wichita Falls; "Toxemias of Pregnancy," by Dr. G. V. Morton of Fort Worth; "Epidemic Parotitis and its Complications in the Female," by Dr. J. F. Burton of Electra; "The Chronic Female Pelvis," by Dr. A. D. Patillo of Wichita Falls; "Surgery of the Gall-Bladder," by Dr. Sam Webb of Dallas; "Carcinoma of the Cervix—With Report of Cases," by Dr. A. M. McElhannon of Sherman; "Chairman's Address" (Medical Section), by Dr. C. W. Stevenson of Wichita Falls; "Malnutrition in Infants and Children," by Dr. C. R. Ferguson of Eastland; "Some Pertinent Pediatric Pointers," by Dr. Edwin G. Schwarz of Fort Worth; "The Treatment of Diabetes—With Report of Cases," by Dr. C. M. Grigsby of Dallas; "Heroic Treatment in Case of Pellagra Mania," by Dr. H. E. Griffin of Graham; "Tertiary Syphilis, Skin and Visceral Manifestations" (lantern slide demonstration), by Dr. Bedford Shelmire of Dallas.

The doctors were given a banquet at the High School Cafeteria by the Chamber of Commerce. At this banquet, addresses were made by the Association President, Dr. B. J. Lee, and by the President of the State Medical Association, Dr. C. M. Rosser.

CHANGES OF ADDRESS.

Dr. J. J. Lockhart, from Rusk to Bonita.
Dr. G. C. Lechenger, from Galveston to Houston.
Dr. C. P. Wray, from Parks to Breckenridge.
Dr. C. V. Nichols, from Rogers to Meridian.
Dr. E. C. Stoeltje, from Temple to Oenaville.
Dr. J. W. Garth, from Beaumont to La Jolla, California.
Dr. L. H. Martin, from Austin to Fort Worth.
Dr. G. W. Griswold, from Cisco to Breckenridge.
Dr. R. A. Tharp, from Shiro, Texas, to Mansfield, Louisiana.

DEATHS

Dr. Julius Noll died at his home at Kerrville, August 16, 1925, after a number of years of ill health following a pus appendix.

Dr. Noll was born at Bandera, Texas, February 21, 1889. His family moved to Kerrville when he was but an infant, and he was educated in the public schools of Kerrville, graduating from the Kerrville High School in 1907. He took his degree in medicine from the Medical Department of the University of Texas in 1912, and practiced medicine at Kerrville up to a short time of his death. Dr. Noll had been an active member of his County Medical Society for a number of years and a member of the State Medical Association. He was a member of the Masonic Lodge at Kerrville, and a Shriner.

Dr. Noll is survived by a brother, Henry Noll, Jr., a sister, Mrs. W. Johnson, and by his father, Henry Noll Sr., all of Kerrville.

Dr. Hugh H. Wisdom died suddenly at his home at Tyler, on April 24, 1925.

Dr. Wisdom was born in Dallas, Texas, in 1878. He attended a private school in that city and later attended Professor Cole's Military School. From

there he went to Thorp Spring, where he attended the Add-Ran College. While at Thorp Spring, he was married, in 1896, to Miss Pattie Miller of that city. He graduated from the Baylor Medical University with the degree of M. D., in 1908. He practiced at Swan, Smith County, for 14 years, after which he moved to Tyler, where he practiced up to the time of his death.

DR. HUGH H. WISDOM.

Dr. Wisdom had been an active member of his County Medical Society since his graduation in medicine, having served as president of his society in 1924. He was greatly beloved by all who knew him, a splendid citizen and skillful physician. The interment took place at the Rose Hill Burial Park, Dr. Osborn, Pastor of the First Christian Church of Tyler, officiating.

Besides his widow, Dr. Wisdom is survived by three daughters, Mrs. B. M. Dutton of Dallas, and Mary and Pattie Zoe, and one son, Woodrow, all of Tyler; his mother, Mrs. Hettie Wisdom of Dallas, and two sisters, Miss Maude Wisdom of Dallas, and Mrs. Laura Riden of New York City.

Dr. Charles B. Simmons died of carcinoma of the stomach at his home in Fort Worth, August 5, 1925, after a lingering illness. This trouble began in 1922 but so little did he make of it that its gravity was not recognized until late in 1923. He submitted to two operations at the Mayo Clinic in a vain effort to regain his health.

Dr. Simmons was born at Beach Springs, Mississippi, November 12, 1869, the son of Captain J. E. Simmons and Sarah Ann Williams. He received his preliminary education at the Cooper Normal Institute in Tennessee. He then attended the Medical Department of Tulane University, from which he graduated in 1893. After graduation he located at Decatur, where he soon established a reputation that even spread to adjoining counties. In 1908 he went to New York where he spent a year in special study in the diseases of the eye, ear, nose and throat, doing most of his work at the New York Ear and Eye Infirmary, Bellevue Hospital Out-Patient Clinic and St. Bartholomew's Hospital. On his return from New York he located in Fort Worth, where he practiced in his special field up to shortly before his death. He was associated at various times with other well known specialists under the firm names of Kookin and Simmons; Simmons, Boyd and Richardson; Simmons and Richardson, and Simmons and Walker. Quiet and unassuming in character, the high professional standing to which he attained was due entirely to his superior intellect and meticulous hard work.

Dr. Simmons was married to Miss Velma Hogg, niece of the great Governor Hogg of Texas, on May 23, 1900. To this union were born two children, Mrs. Frank S. Schoonover and Miss Mary Francis Simmons, both of Fort Worth. Dr. Simmons had long been a valuable and conscientious member of first Wise and then Tarrant County Medical Society, the State Medical Association of Texas, and the American Medical Association. He was a 32nd Degree Mason, a Knight Templar and a Shriner, and was also a member of the Knights of Pythias and the River Crest Country Club. His church affiliation was with the First Methodist Episcopal Church, South. His Masonic Lodge took charge of the funeral

DR. CHAS. B. SIMMONS.

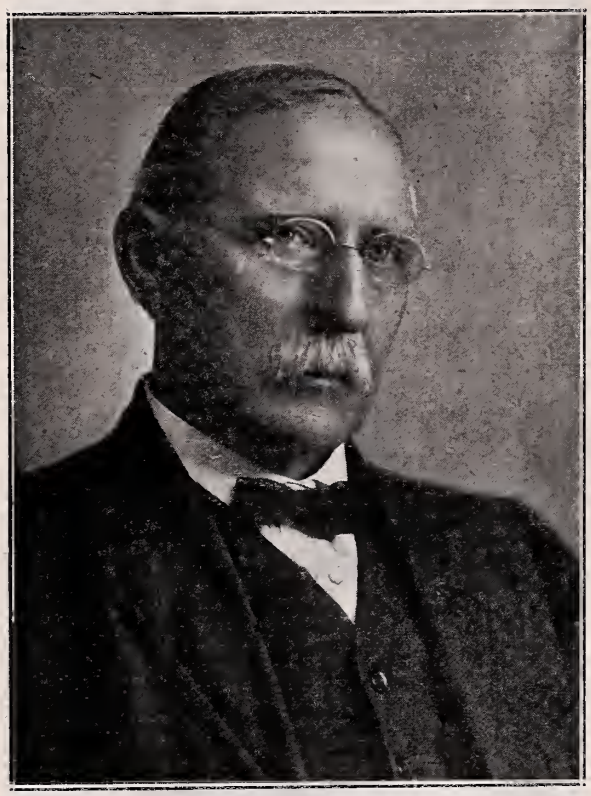
services at the cemetery, the Grand Master of Texas, Hon. Guinn Williams of Decatur, officiating.

All who knew Dr. Simmons loved him for his sterling worth and loyal friendship. His host of warm friends join with his devoted family in mourning his loss. He is survived by his widow, two daughters, four brothers, Judge Tom Simmons of Fort Worth, John Simmons of Decatur, Dr. James Simmons of Bowie, and Marvin Simmons of the United States Immigration Service, Alice, Texas; and three sisters,

Mrs. Tom McClure of Fort Worth, Mrs. Sallie Nash of Dallas, and Mrs. Eugene Palmer of Jackson, Mississippi.

Dr. James M. Inge of Denton, Texas, died of septicemia at a Dallas sanitarium, following a streptococcic infection of one arm.

Dr. Inge was born in February, 1852, in Graves County, Kentucky, the youngest of a family of nine



DR. JAMES M. INGE.

children. His father before him, from whom he was named, was a distinguished physician. After the death of his father, Dr. Inge moved with his family to Fannin County, Texas, where he worked on the farm and attended such schools as the rural districts afforded. When 16 years of age, he began clerking in a drug store in the then frontier town of Denton, where he read medicine for 2½ years. One of his choicest reminiscences during this period was that of dissecting the body of an Indian who had been killed in a neighborhood raid.

In 1872, he entered Louisville Medical College, where he soon attracted attention by his studiousness and knowledge of anatomy. Returning to Denton County in the spring of 1873, he began the practice of medicine at the age of 21. In the fall, he returned to school and graduated from the Louisville Medical College in the Class of 1874. He received the anatomical prize, a handsome case of surgical instruments, and also received honorable mention for his standing in surgery, gynecology and internal medicine. Returning to Denton, he continued to practice until the time of his death. He organized the first Denton County Medical Society in 1876, which was discontinued after a short time. Later, he reorganized this society so that when the Councilor wished to organize a county society under the present plan, he found an organization already perfected. Although Dr. Inge had served as president of the old organization, he was unanimously elected first president of the new. He was always an active worker in organized medicine, and was one of the charter members of the North Texas Medical Association, and served that Association one term as president. He became a member of the State Medical Association of Texas 45 years ago, and has served on nearly all of its important committees, and one term as vice-president. He was unanimously elected president of the Association for 1916-17, being the forty-ninth president of the Association. His contributions to scientific literature are numerous and valuable and many of these may be found in the TRANSACTIONS of the Association, and in the JOURNAL. Dr. Inge took many postgraduate courses at the principal medical centers of this country, and was widely known as a skillful and successful surgeon. He was a consistent member of the Methodist Episcopal Church, South, and was a member of the Odd Fellows, Knights of Pythias and the Woodmen of the World.

In February, 1876, he was married to Miss Anna Ritchey, the youngest member of a pioneer family of Gainesville. To this union were born four children. He is survived by his widow and two children, Mrs. H. R. Grant, and James M. Inge, Jr., of Dallas.

In the passing of Dr. James M. Inge, the State has lost one of its splendid outstanding characters—a "family physician of the old school," a pioneer surgeon of the kitchen table era, but a scholar who kept well apace of the time, and a citizen the value of whose life and influence is incalculable. The community in which he lived has lost a most valuable medical adviser and citizen; the medical profession one of its staunchest friends and most brilliant colleagues. The following resolutions of respect were adopted by the Denton County Medical Society:

Whereas, in the death of our most worthy friend and colleague, Dr. J. M. Inge, not only the Denton County Medical Society, but the State Medical Association and the American Medical Association has lost a most valuable worker for organized medicine. A man who kept abreast of the times by familiarizing himself with professional scientific literature, attending clinics and associating himself with the most progressive men in both medicine and surgery. He was a man that placed service before self, was always ready to extend help and counsel his fellow practitioners. He possessed all the attributes of a true gentleman. He brought honor to Denton through his services to County, State and National Medical Societies; therefore be it

Resolved, that we, the Denton County Medical Society, tender the bereaved family our condolence, and extend to them our sympathy in this their sad hour of bereavement; and be it further

Resolved, that these resolutions be spread upon the records of this Society, and that a copy be sent to the Denton papers, the TEXAS STATE JOURNAL OF MEDICINE, and that a copy be sent to his bereaved family.

P. LIPSCOMB, M. D.,
D. F. KIRKPATRICK, M. D.,
G. D. LANE, M. D.,
Committee.

BOOK NOTES

The Treatment of Syphilis.—A working monograph on the treatment of syphilis, prepared for the medical profession by the Dermatological Research Laboratories. This will be sent with the compliments of the publishers to any physician requesting a copy. This booklet discusses the following in separate chapters: Introduction, Syphilis Today; Arsphenamine vs. Neoarsphenamine; Sulpharsphenamine; Bismuth in Syphilis; Mixed Treatment; Methods of Treatment; The Primary Stage, The Secondary Stage, The Tertiary Stage, Neurosyphilis; Intraspinal Injections; Technic of Preparing: Arsphenamine,

Neoarsphenamine, Sulpharsphenamine, Bismuth; Possible Reactions: Sodium Thiosulphate; References.

Requests for this monograph should be addressed either to the Abbott Laboratories, Chicago, or the Dermatological Research Laboratories, Philadelphia.

On the Breast. By Duncan C. L. Fitzwilliams, C. M. G., M. D., Ch. M., F. R. C. S., Surgeon in Charge of Out-Patients and Lecturer on Operative Surgery to St. Mary's Hospital, etc. 8 vo., cloth, 440 pages, illustrated. Price $10. C. V. Mosby Company, St. Louis, U. S. A.

Upon picking up a work of this size, it is at first difficult to imagine how so much could be written on such a small portion of the anatomy. The author states that he was prompted to write this book by the fact that he could find no volume on the subject that seemed to be at all adequate, with the possible exception of one by Marmaduke Shield. The work begins with the embryology of the breast and traces its development to the adult functioning organ. The next chapter gives in detail the physiology and anatomy of the organ. Chapters III and IV contain a great mass of collected cases of various congenital anomalies of the breast. Many of these reported cases could not be accepted by the reviewer except *cum grano salis*. At any rate whether fiction or fact, the cases recited are very interesting, and some of them are vouched for by clinicians whose veracity cannot be questioned. Chapters V and VI deal with Suppuration in the Breast and Abscesses. Chapter VII treats of Lobar Mastitis, Chapter VIII of Hysterical Breast, and Chapter IX of Parenchymatous Hypertrophy of the Breast. The succeeding chapters take up tuberculosis and syphilis of the breast and the various types of cysts that affect that organ. Following this are described first the benign and then the malignant tumors of the breast. The various methods employed in the treatment of malignancy of the breast are described. The discussion of treatment is enlivened by the reporting of quite a number of interesting cases.

Physical Diagnosis of Diseases of the Chest. By Joseph H. Pratt, A. M., M. D., and George E. Bushnell, Ph. D., M. D., 8 vo., cloth, 522 pages, 166 illustrations. Price $5.00 net. W. B. Saunders Company, Philadelphia, 1925.

This excellent work is divided into two parts. The first on The Lungs, is written by Dr. Bushnell, and the second on The Heart, by Dr. Pratt. The first part of the book is divided into five chapters. First is taken up the question of case histories, and then the Diagnostic Procedures as Applied to Diseases of the Lungs. Under this heading are taken up, Inspection, Palpation, Percussion, Auscultation, The Breath-Sounds, Pathological Conditions which Modify Breath-Sounds, Vocal Resonance and Vocal Fremitus. In Chapter III the Physics and Physiology of the Lungs are discussed in relation to the physical diagnosis of lung diseases. In Chapter IV the Physical Diagnosis of Diseases which Implicate Lungs and Pleura is discussed in detail. Chapter V is devoted entirely to the important subject of Pulmonary Tuberculosis. Dr. Bushnell has long been recognized as an authority on diseases of the lungs, and he has never, perhaps, shown so clearly his ability to impart his knowledge to others as in the present volume. The second section of the book, which deals with the heart, and which is written by Dr. Pratt, who needs no introduction to the student of heart diseases, comprises ten chapters as follows: Normal and Pathological Physiology in Their Relation to the Physical Diagnosis of Diseases of the Heart; Procedures in Physical Diagnosis as Applied to Diseases of the Heart; Instrumental Methods Employed as Aids to the Physical Diagnosis of Diseases of the Heart; Cardiac Irregularities; Testing the Functional Power of the Heart; The Classification of Cardiac Disease; Diagnosis of Diseases of the Heart Valves and Myocardium; Diagnosis of the Cardiac Neuroses; Diagnosis of Diseases of the Pericardium; Diagnosis of Diseases of the Aorta. The book is printed in large type on a good quality of calendered paper and with many excellent illustrations.

The Technic of Local Anesthesia. By Arthur E. Hertzler, A. M., M. D., Ph. D., LL. D., F. A. C. S. Professor of Surgery in the University of Kansas, Surgeon to the Halstead Hospital, Halstead, Kansas; to St. Luke's Hospital and St. Mary's Hospital, Kansas City, Missouri, and to the Providence Hospital, Kansas City, Kansas. Third Edition. 8 vo., cloth, 272 pages, 140 illustrations. Price $4.40 net. The C. V. Mosby Company, St. Louis.

The first chapter in this work discusses the physiological action of the drugs usually employed in local anesthesia, and the next chapter the technic of their administration. Chapter III deals with general operations, while the remaining 17 chapters give in detail the technic for inducing local anesthesia for operations on the following regions: The Scalp, the Cranium and Its Contents; Face, Jaw and Tongue; Ear and Mastoid; Gasserian Ganglion and the Trifacial; Tonsils, Adenoid, Larynx, Trachea, and Thyroid Gland; Mammary Gland; Thorax, Lungs and Spine; Abdominal Operations; Umbilical Hernias, Hernias of the Linea Alba and Scar Hernias; Hernias; Sacral Blocking, Paravertebral and Spinal Anesthesia; Penis and the Scrotum and Its Contents, Urethra, Bladder and Prostate; Female Organs; Rectum; Upper Extremities and Lower Extremities.

The text is aided greatly by the numerous well selected and well executed illustrations. The work is intensely practical and the opinions expressed are born of an extensive surgical experience.

Simplified Nursing. By Florence Dakin, R. N. Inspector of Schools of Nursing of the State of New Jersey. 8vo., cloth, 499 pages, 77 illustrations. Price $3.00 net. J. B. Lippincott Company, Philadelphia.

This work is the result of an extensive nursing experience on the part of the author, covering a period of more than 20 years. The book is divided into three main divisions: Part I, Routine Work; Part II, General Nursing Methods, and Part III, Special Nursing Methods. It also contains a glossary and subject index. The many illustrations are well chosen and executed. The book should be found very valuable as a text book on nursing for either the trained nurse or the so-called practical nurse. There is much good, sound advice given in the volume and it is a great pity that more of this advice is not applied in practice. As in the practice of medicine, nursing is both an art and a science, and the two are inseparable.

Infection, Immunity and Inflammation. A Study of the Phenomena of Hypersensitiveness and Tolerance, and Their Relationship to the Clinical Study, Prophylaxis and Treatment of Disease. By Fraser B. Gurd, B. A., M. D., C. M., F. A. C. S., Lecturer in Applied Immunology and in Surgery, McGill University. 8vo., cloth, 329 pages. Price $5.00. C. V. Mosby Company, St. Louis, 1924.

The work first takes up the "Defensive and Offensive Reaction of the Body Against Irritants," and then discusses "Infection and Infectious Agents." The subject of "Immunity and Immunization" leads

naturally to the question of "Hypersensitiveness" and "Anaphylaxis." The phenomena of anaphylaxis are discussed in detail and much experimental data on this subject is given and many quotations from the literature on the subject are included. The chapter on the "Physiology of Anaphylactic Shock" is especially well written and thorough. The questions of "Desensitization" and "Tolerance" are discussed at length, anaphylactoid and allergic reactions are described, and also the part the leucocytes play in immunology, and the nature and function of alexin, sensitizing substance, agglutinins and precipitins. Inflammatory reactions are first discussed in general and then more specifically, the reaction to tuberculosis, leprosy, etc., being carefully described. Chapter XXIV deals with "Anaphylaxis in Man," and is enlivened by a number of case reports. Chapters XXV and XXVI discuss the "Application of the Principles of Immunity to the Prevention and Treatment of Disease."

Developmental Anatomy, a Text-book and Laboratory Manual of Embryology. By Leslie B. Arey, Professor of Anatomy at the Northwestern University Medical School, Chicago. Octavo volume of 343 pages with 419 illustrations, many in colors, cloth. Price $5.50 net. W. B. Saunders Company, Philadelphia and London, 1924.

In the introductory chapter, a brief history of the development of embryology is given, which is followed by certain fundamental conceptions. The work is divided into three parts. The first part embracing the Introduction and 4 chapters is entitled "General Development." Under this heading are discussed in detail "The Germ Cells and Fertilization," "Cleavage and The Origin of the Germ Layers," "Implantation and Fetal Membranes," and "Age, Body Form and Growth Changes." Part II is entitled "Organogenesis," and is divided into three main divisions as follows: "Entodermal Derivatives," "Mesodermal Derivatives," and "Ectodermal Derivatives." The first of these divisions comprises two chapters on the digestive and respiratory systems, respectively. The second division comprises five chapters on the following subjects: "The Mesenteries and Coelom," "The Urogenital System," "The Vascular System," "The Skeletal System" and "The Muscular System;" while the last division contains four chapters on: "The Integumentary System," "The Central Nervous System," "The Peripheral Nervous System" and "The Sense Organs." Part III is "A Laboratory Manual of Embryology," and is composed of two chapters dealing with the Studies of Chick and Pig Embryos, respectively. This volume is as interesting as such an abstruse subject as embryology could be made, and the text is aided greatly by the numerous excellent photographic and diagrammatic illustrations. The book is printed on excellent paper and in large type, which is very helpful—as well as pleasing—to the eye. The binding is of excellent quality and quite attractive.

The Treatment of Fractures in General Practice. By C. Max Page, D. S. O., M. S., F. R. C. S., Senior Surgeon to Out-Patients, St. Thomas' Hospital, Surgeon to the Victoria Hospital for Children, Etc., and W. Rowley Bristow, M. D., D. S., F. R. C. S. Surgeon to the Orthopaedic Department, St. Thomas Hospital, Etc. 12mo. cloth; 239 pages, 14 chapters, 168 illustrations. Price $4.00. Oxford University Press, American Branch, 35 West 32nd Street, New York City.

The purpose of this book is stated in the introduction to be that of a manual of the treatment of fractures such as are met with in general practice. The more common fractures are taken up and described with reference, first, to diagnosis, and then to treatment. The author's style is clear and concise, and the text is aided greatly by the profuse and excellent illustrations. It is easy to see the influence of war surgery on the methods of treatment described, especially in the matter of splints, traction and counter-traction. This volume should prove a very practical and useful one.

Internal Secretions and the Ductless Glands. By Swale Vincent, LL. D., D. Sc., M. D., M. R. C. S., L. R. C. P., F. R. S., F. Z. S. Professor of Physiology in the University of London, Middlesex Hospital Medical School. 8vo., cloth, 463 pages, illustrated, Third Edition. Price $10. Physicians and Surgeons Book Company, 353 West 59th St., New York City, N. Y.

In these days when one hears so much of ductless glands, internal secretions and organotherapy, and when biological houses seem to vie with each other in putting out claims for such products so extraordinary as to be entitled to a place in "Arabian Nights," it is a relief to find a text-book on this interesting subject, written from a scientific standpoint. No extravagant claims are made for any of the various internal secretions from which pharmaceutical preparations have been prepared. The physiology of the ductless glands is treated in a very entertaining way, and many of the experiments that have been performed by various investigators are briefly described in order that the reader may appreciate the steps leading to the author's conclusions concerning the physiological action of the glands of internal secretion. The chapter on "The Internal Secretions of the Reproductive Organs" is especially interesting, and the deductions made by the author seem to be scientifically sound. There has been a great deal of buncombe and hokus-pokus written on this subject, and it has found its way not only into the twilight zone of medicine, but has even appeared in the form of outright and blatant quackery.

Proceedings of International Health Conference in Tropical America, held at Kingston, Jamaica, B. W. I., July 22 to August 1, 1923. By invitation of the Medical Department, United Fruit Company, 8vo., cloth, 1010 pages, profusely illustrated. Published by the United Fruit Company, Boston, Massachusetts, 1924.

Possibly the best way to review this very unusual collection of splendid essays by world authorities on tropical medicine, would be to outline the Table of Contents, but lack of space precludes this. Suffice it to say that the long list of contributors to this volume contains the names of the majority of men internationally known for their work in tropical diseases.

The United Fruit Company has been a pioneer and leader among corporations, in looking after the health of its employees. Of course, it might be said that they have recognized that this is a matter of good business judgment, and that such care has proven profitable to them, which assertions are true. Nevertheless, they are entitled to commendation for the attitude they have taken in this regard, and the work they have done has not only proven beneficial to the corporation, but has been of immeasurable benefit to those counties which lie in the tropics, and in turn, to the whole world. We live in an age when transportation facilities have made the world a comparatively small place, so that health conditions in nations far removed from each other may have a profound affect, the one upon the other. This conception is well brought out in a number of the essays in this volume.

Texas State Journal of Medicine

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Vol. XXI **November 1925** **No. 7**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Help the Red Cross.—November is the month of the Red Cross Roll Call. At this time it is expected that every man, woman and child in this great land of ours shall express an interest in this magnificent organization, by a contribution of some sort. Many will not be able to pay more than the nominal one dollar membership fee, but there are few so pressed for funds that this amount may not be spared for this purpose. There are those who will give many, many times more than this sum, which is by way of compensation. Just where the doctor fits in we cannot say, at least as to finances. Of this we are certain, however, that the medical profession will not be found wanting in either the matter of interest or financial support when Red Cross petitions. We have the feeling that the medical profession of Texas will be found active in support of the Roll Call in each community in this State where the Red Cross is before the people. Indeed, it is our idea that doctors will be interested in promoting activity where there is none. That is well, and as it should be.

Would you care for those whom disaster has made homeless?
Would you show gratitude to the wounded veteran who courted death that war might give way to peace?
Would you save life and prolong health?
Would you teach children to love and to serve?
If so, join THE AMERICAN RED CROSS during the Annual Roll Call, Armistice Day to Thanksgiving.

As a matter of fact, wherever there is disaster, the first thought of Red Cross, and the first need of the occasion, is doctor, nurse, and hospital and medical supplies. And the first thought of anybody when there is disaster, is Red Cross. And there have been many major calamities in the United States during the forty-four years that Red Cross has been with us, over seven hundred, to be nearly exact, and in the relief of these conditions, the American Red Cross has expended some $46,000,000 of its own and contributed funds.

The Red Cross in its particular field can be fairly well compared to the Army and Navy in their field. In time of peace our armed forces are trained for use in time of war. In this country no other use is made of our Army than to train it for such regrettable emergency as war. The Red Cross likewise must in time of peace be trained for the exigencies

of war, but in the meantime it is used as a welfare agency. Those of us who served in the Army, particularly those who had the privilege of serving overseas, fully appreciate the value of Red Cross in war times. These, certainly, can appreciate the fact that if the organization is not protected and maintained at least in skeleton form in peace times, it will not be ready for service when war demands are made upon it, any more than would the Army if neglected between emergencies. To Red Cross major calamities, anywhere in the world, are as calls to war, and it responds just as vigorously and efficiently as do our own good Army and Navy. What it would mean to our Government should the Army be forced to organize its own welfare service, can well be understood by those who have had military training. It is to be hoped that Red Cross will always be properly appreciated and properly maintained. Join the American Red Cross, and do it now!

Educational and Law Enforcement Committee Reports Progress.—Since our last discussion of the subject, there have been many arrests of persons believed to be practicing medicine in violation of the law, and several convictions. There has been no failure to convict where the committee has had active charge of prosecutions, and not more than one or two failures otherwise. In instances where failure has been recorded there have invariably been some contingencies that could not have been anticipated or prevented. On the whole, progress has been almost amazingly successful, both in the matter of enforcement and public enlightenment. Indeed, the two are supplementary. Chances for conviction without a fair amount of educational publicity are ordinarily slim, because of the characteristic sympathy of the American people for the under dog. It is necessary to convince the observer that the underdog richly deserves to be there before such misplaced sympathy can be aborted. It is this contingency that the so-called roster plan of publicity, with the related procedures, is designed to meet. That it does meet it is apparent when results are considered.

One notable phase of the present situation is the growing tendency on the part of county societies to call for the assistance of the State Board of Medical Examiners and the State Medical Association. There are two deputies of the State Board, loaned by our Association, who are devoting their entire time to this work. They function only in connection with county societies or groups of physicians who are in earnest in their desire to protect the public from ignorance and quackery in the practice of medicine. Under no conditions do they undertake operations in any community

The Standard is Safe---It Must Not Be Lowered

Special pleaders will again ask the Legislature to create a special board for chiropractors, to examine them in their method or in scientific subjects from a chiropractic standpoint.

The State can not be interested in methods, for methods constantly change; if they do not change they deny recognition to improvements.

Science, on the other hand, remains fixed for it is a group of facts. Therefore, there can be no such thing as anatomy from a chiropatric standpoint, nor chiropractic physiology, nor chiropractic pathology, etc., just as there is no such thing as anatomy from a medical standpoint, nor medical physiology, nor medical pathology.

The actual sciences upon which the healing art is based are human anatomy, human physiology, human pathology, etc., and the practitioner of any method should know these fundamentals.

The Medical Practice Act was passed by the Thirtieth Legislature in response to the mandate of the Constitution, Art. 16, Sec. 31. This Act was amended by the Thirty-eighth Legislature to make it easier of enforcement.

The requirements of this law are high enough to give reasonable protection to the public health against ignorance and incompetence, yet they are low enough to be within easy reach of average intelligence and industry.

This law does not attempt to dictate what method of treatment any practitioner shall use. It does provide that before he may practice by any system or method he shall obtain a reasonable amount of knowledge of the human body and its diseases; demonstrate his possession of this knowledge by taking a fair examination before a composite, non-partisan board; obtain from this board a license, and register same with the District Clerk in the county of his residence.

Medicine is the art of healing, regardless of whether drugs are used or not. Thousands of years of intelligent experiment have reduced medicine to an exact science. This science is based on fundamentals—Anatomy, Physiology, Histology, Diagnosis, Hygiene, Bacteriology, Obstetrics, Gynecology, Chemistry, Pathology. These groups of basic facts, with Medical Jurisprudence, are those required for examination to practice any system of ministering to the sick for pay in Texas.

Legislatures in some other States have been induced to give Chiropractic a separate board. Chiropractic may be used in Texas by any person who has proven his familiarity with the above fundamental branches. The Legislature of Texas in 1923 and again in 1925 refused to lower the standard to accommodate any one who has not learned enough to qualify under this non-discriminating law. The Legislature is expected to continue to use its same good judgment in the interest of the public's health.

The present standard is reasonably safe. It is fair. It is impartial. It must be maintained.

Texas State Board of Medical Examiners

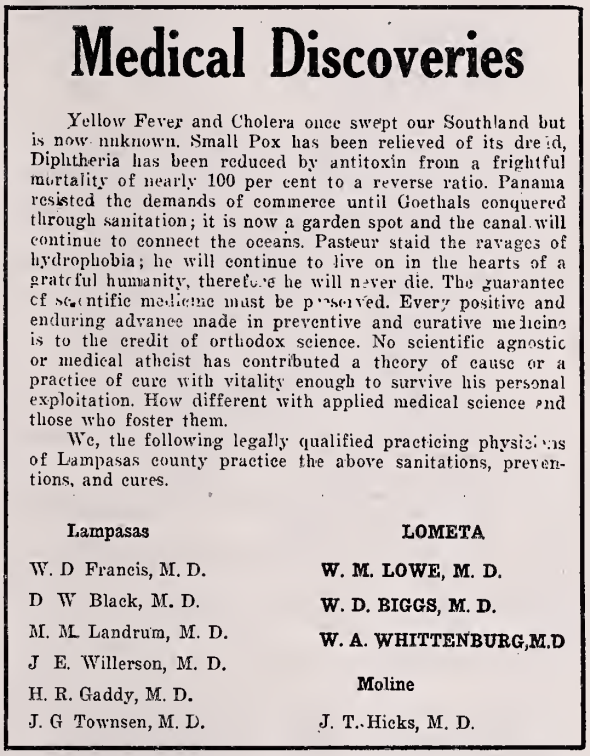
Fig. 1. This ad is in fact a very good editorial on the subject. It must appeal to any intelligent layman who will read it. The typographical makeup is simple and in keeping with the reading matter. The material so briefly referred to here could be worked into a number of display ads by a trained ad writer.

where the hearty support of the medical profession is not forthcoming. It will be remembered that our purpose in this whole movement is to help the State Board of Medical Examiners enforce the Medical Practice Act, and not ourselves to enter into any active prosecution of persons believed to be in contravention of our very excellent Medical Practice Act. We make no secret of the fact that we are rallying to the support of the State Board of Medical Examiners because of our

knowledge of the harm that is being done by many of those who are violating this law and because of our interest in the welfare of our people. We would readily assume the responsibility of arbitrarily putting a stop to such illegal practices if it were within our power to do so, but it is probably not our legal responsibility and for that reason we are proceeding through channels.

Recently a lady visited this office and complained that quackery was rampant in her community and petitioned us to enter the field and endeavor to put a stop to it, promising all sorts of assistance. Our advice to her was that she discuss the matter with the physicians locally and we would be glad to respond to any requests for assistance coming from the latter source. As it happens, our representatives had visited the community referred to and had been told by the physicians there that conditions were not ripe for this service and advised that operations be postponed. This leads us to the conclusion that sometimes we are not sufficiently sensitive to public demands, because of our sensitiveness in other directions. We are afraid that we will be criticized for doing that which many people consider outside our natural sphere of activity. And we will be criticized, no doubt of that, but by people who are either interested in the continued violation of the law we are trying to enforce or who are misled by misinformed associates.

Campaign Not Against Any Particular Cult.—In this connection, we might call attention to the disposition of the opposition, and occasionally of a newspaper in sympathy with the opposition, to the charge that our campaign is intended to put chiropractors out of business. This is not true, of course, except to the extent that the chiropractors are practicing contrary to law. If it happens that this cult is in the majority among these, the fact cannot be evaded, and the campaign will inevitably take upon itself this appearance. The *Times* of Smithville, recently republished from the *Guadalupe Gazette Bulletin*, an article under the head of "Attorney General Warns Chiropractors to Leave the State of Texas," in which an effort was made to lend the impression that the Attorney General was joining with the medical profession in an endeavor to run all chiropractors out of the State, and in which physicians were discredited in comparison with chiropractors. The article quoted the often published, ridiculous, erroneous and assumed data pertaining to the treatment of influenza in 1918, in which is was claimed that medical science lost one case in sixteen, osteopathy one in one hundred and twenty-seven, and chiropractic one in eight hundred and eighty-six cases. Of course, the Attorney General was speaking



Medical Discoveries

Yellow Fever and Cholera once swept our Southland but is now unknown. Small Pox has been relieved of its dread, Diphtheria has been reduced by antitoxin from a frightful mortality of nearly 100 per cent to a reverse ratio. Panama resisted the demands of commerce until Goethals conquered through sanitation; it is now a garden spot and the canal will continue to connect the oceans. Pasteur staid the ravages of hydrophobia; he will continue to live on in the hearts of a grateful humanity, therefore he will never die. The guarantee of scientific medicine must be preserved. Every positive and enduring advance made in preventive and curative medicine is to the credit of orthodox science. No scientific agnostic or medical atheist has contributed a theory of cause or a practice of cure with vitality enough to survive his personal exploitation. How different with applied medical science and those who foster them.

We, the following legally qualified practicing physicians of Lampasas county practice the above sanitations, preventions, and cures.

Lampasas	LOMETA
W. D Francis, M. D.	W. M. LOWE, M. D.
D W Black, M. D.	W. D. BIGGS, M. D.
M. M. Landrum, M. D.	W. A. WHITTENBURG,M.D
J E. Willerson, M. D.	
H. R. Gaddy, M. D.	Moline
J. G Townsen, M. D.	J. T. Hicks, M. D.

FIG. 2. A very simple ad, suitable for restricted space. The reading matter concisely states important facts and should make a good impression on the intelligent layman. It carries out the roster idea.

against violators of the Medical Practice Act of whatever breed, cult or kind, and chiropractors were mentioned incidentally and because it appears that they constitute the great bulk of violators of this law. Of course, also, there are no such statistics as those quoted, except in the imagination of whoever was responsible for the circulation of this choice illustration of the adage that while figures won't lie, liars can figure.

From the *Lubbock Avalanche* comes a clipping headed, "Dallas Physicians Attack Dallas Chiropractors," having reference to the fact that numerous chiropractors had

been arrested for violating the Medical Practice Act. The item carried the statement that a representative of the Dallas Medical Society filed charges against those who had been arrested. The statement is further made that

Prosecution Or Persecution?

We learned at the State Chiropractic Convention, which was held in Dallas October 10th and 11th, that Chiropractors are being persecuted all over the State of Texas for practicing medicine without a license.

Our only mission in this community is to do good. The things which are good for this community are the things for which we stand.

Who are these medical dictators who desire to be appointed judge and jury over man in his search for health?

Who are these men who cry, "You cannot help man with your methods, because you cannot pass an examination in my methods, which I know you do not use"?

Who are these people so steeped in brotherly love that they say, "You cannot do anything for humanity, using methods of which I know nothing"?

Go into the homes and hovels of the sick, peer into these worn and death-pallied faces, then ask yourself, "Can there be a set of men so prejudiced that they would halt the hand by which new methods can, and do restore health"?

It is therefore, that I would say to those who would stop the wheels of progress; those who would prohibit us from doing good—

"Father forgive them, for they know not what they do."

We are graduates of the largest non-medical institution in the world—The Palmer School of Chiropractic, at Davenport, Iowa.

(1) We use no medicine.

(2) A medical education does not qualify medical practitioners to examine Chiropractors in Texas. No Chiropractic examinations were ever held in Texas. No Chiropractic license CAN be issued under the present law.

(3) We are more than willing to take an examination to practice Chiropractic. We do not pose as cure-alls. Our only desire is to continue to do good for humanity—to help those who suffer.

If doing good in the world is a criminal act, we are criminals and our place is in jail.

Bunn & Gillett

PALMER GRADUATE CHIROPRACTORS

OFFICE HOURS 12:30 TO 3:00 P. M. LINDALE, TEXAS

FIG. 3. One of the most effective of the chiropractic ads published recently. It very cleverly plays upon the ignorance of the reading public, and appeals to their sense of fair play, to the exclusion of reason. Note the inference that examinations conducted by the State Board have to do with the method of practice; also the insinuation that some one is seeking to prevent chiropractors from relieving suffering humanity. Of course, the contrary is true is both instances. There is no examination on method of practice and we know of no instance where members of this cult have put themselves out to administer to suffering humanity except at so much per.

a fight had for some time been brewing between physicians and chiropractors. No such thing had happened. A representative of the State Board of Medical Examiners, loaned the Board, as we have already said, by the State Medical Association, brought about the arrest of these alleged violators of the law, and there has been no fight brewing between the Dallas physicians and chiropractors, so far as the Dallas physicians are aware.

The *Corpus Christi Times* prints a news dispatch from Dallas, having reference to the same situation, in which the allegation is made that these arrests constituted a high spot in the controversy between these two groups. This item winds up with the statement that the chiropractors concerned are said to be very wealthy and will stand their ground and fight the charges. Further comment is not necessary.

The *Amarillo News* prints an item under the title "Fight Brewing Against Local Chiropractors." In the body of the article it is stated that a determined fight against chiropractors is to be made by members of the Potter County Medical Society, in coöperation with doctors in other parts of the State. Except for the head lines, the article is entirely fair. There are other such items, but time will not permit us to refer to them in detail. Some of these are vicious, but for the most part they are purely assumptions. We are endeavoring to convince the newspapers of our State that we are not fighting any particular group of practitioners of medicine, and are solely interested in the enforcement of the law governing the practice of medicine, in order that our people may be protected.

Campaign for Prevention, Not Punishment.—In contrast with the general publication of such misleading items as the above, a few newspapers in the State published a dispatch from Austin to the effect that the policy advocated in this enforcement campaign is to permit the dismissal of charges against the alleged violators of the Medical Practice Act who will agree not to continue their unlawful practices. The public should be possessed of this fact, in order that the charge that this is persecution and not prosecution, may be offset. We are regretful that our newspaper friends would not give this item the same extensive publicity that was given the items just referred to.

Campaign Succeeding.—We recite these miscellaneous matters somewhat at length, in support of our claim that the law enforcement campaign is progressing apace, and is succeeding. It is said that action and reaction are equal, and in opposite directions, or words to that effect. The prompt and vigorous reaction to this campaign leads to the conclusion that we are getting somewhere. As reaction decreases action will in like manner subside, and the battle will be won. If action subsides as reaction increases, things will quiet down with the con-

trary results. Therefore, this is most certainly not the time to quit, and there appears to be no tendency on the part of the medical profession or the Board of Medical Examiners to do anything of the sort. An incident recently came under our observation, which is most hopeful, in this connection. The son of one of the leading educators of this State happens to be a chiropractor. He is well educated and evidently a man of some parts. One of those interested in the prosecution of our enforcement campaign interviewed this gentleman, seeking to persuade him that he should desist from violating the law and turn his talents into more worthy channels. He was very considerate in his argument, but persisted in his belief that he was not in fact a violator of the law and should not be interfered with. His argument may be synopsized somewhat as follows:

No chiropractor can be licensed to practice medicine in Texas because there is no chiropractor on the State Board of Medical Examiners; the next Legislature will legalize the practice of chiropractic; every great, new science has had to gain recognition by bitterly fighting for it, often having to withstand persecution for many years; chiropractors study everything medical doctors study except materia medica; chiropractors take eighteen months' continuous studies, not broken by vacations, which is equivalent to the length of time spent by practitioners of the other schools in mastering their respective professions; the State of Texas has chartered a chiropractic teaching institution; chiropractors are conscious that much good comes of their treatment; the Medical Practice Act does not apply to chiropractic because it was enacted into law before there was such a thing; nowhere in the law is the practice of chiropractic forbidden; laws are never repealed, simply passing out of date and becoming null and void because of popular support; the Medical Practice Act is so broad in its application that it becomes a farce—the grandmother of a family could not give a dose of castor oil without violating the law; the whole movement is by way of spasmodic effort and will soon cease.

Of course, the answer is simple. The Medical Practice Act does not require an examination on methods of practice, and the members of the board have no knowledge of the individual examinee when his paper is being graded; no factor involved in chiropractic could possibly enter an examination conducted by the Board; while it is true that some of the advances made in medicine have had to overcome opposition, it is also true that where this happened one time, it has many times happened that what were claimed to be wonderful discoveries in medicine have passed into oblivion without any particular amount of opposition; the laws of the State of Texas permit the chartering of educational institutions of any sort, and there is no authority for withholding charter because of the nature of the teachings therein; while chiropractic was not in contemplation when the original of the present Medical Practice Act was passed, the Legislature has on two occasions, to our very distinct knowledge, given full consideration to its claims, and by a large majority refused to depart from the

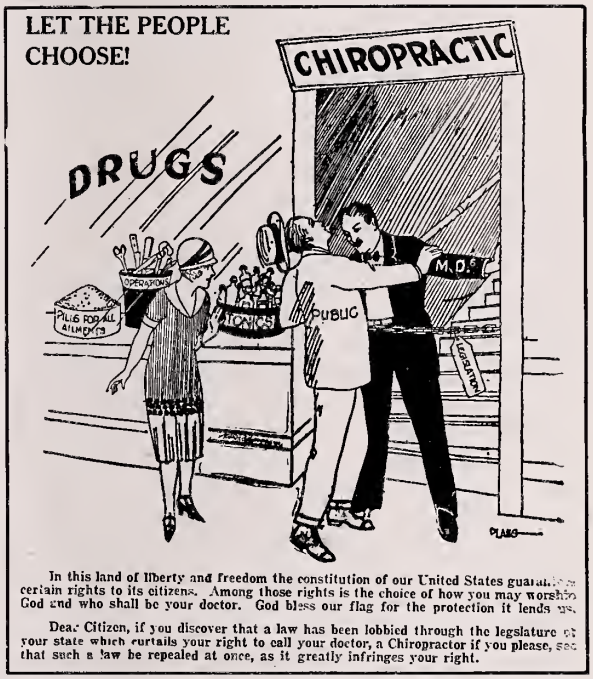


FIG. 4. This is a very crude effort to convey the idea that the medical profession is preventing the public from patronizing the chiropractor. It probably is effective with the type of people to which it appeals. Note the insinuation that doctors give pills for all illness. This would seem to be rather inconsistent in view of the claim of the chiropractor that adjustments of the vertebrae will do for all ailments. Note the reference to God, the doctor and the flag. Just why the doctor is shown as on the inside of the stairway leading to the office of the chiropractor, and why the public should be about to lose its hat and topple over backwards, we do not quite get, but evidently consistency is no more necessary here than elsewhere in the happy lives of the cultists.

principle that whosoever attempts to heal by whatsoever method shall be examined on the fundamental scientific principles involved in medicine; it would be a strange interpretation of the law which would lead to the conclusion that any practice not specifically excluded thereby may be resorted to; while the definition of the practice of medicine carried by the Medical Practice Act is broad and comprehensive, it distinctly does not apply to the conditions referred to, it not being considered that the grandmother would charge her grandchild for administering a dose of castor oil; the movement will probably last quite a while.

The encouraging part of this incident is the fact that the gentleman in question has convinced himself that he is wrong in his position, and is preparing to take up another and more reputable vocation.

Supporting Resolutions Helpful.—Here and there over the State, county and district societies are adopting resolutions in support of the State Board in this effort, and it need not be doubted but these acts are helpful. Many of the sympathizers of the quack are at heart believers in scientific medicine, and particularly in their respective family physicians. When these people become convinced that the doctors are in earnest and know what they are talking about, there will be a reversal of sentiment. As a rule, doctors do not like to argue such questions as this with their good friends and patrons, and so a false impression gets abroad as to their attitude. There is a feeling that the doctor joins in the hue and cry against the quack simply because his fellows are leading in the attack and that he really does not care anything about it; and that, after all, there is not much justice in the fight. The effect a reversal of sentiment would have may readily be anticipated by considering the number of these people who are eligible for jury duty, and the further fact that the law enforcement officers are themselves among the number. The following resolution adopted by the Fourth District Medical Society, is one of the best we have seen, and we are submitting it for the consideration of other organizations (we have deleted a phrase which might have subjected us to libel proceedings had we printed it, but which we would have liked to emphasize, as a matter of fact):

"*Whereas,* our State Legislature has enacted for the purpose of protecting the citizens of the State of Texas, a law known as the Medical Practice Act, requiring those who propose to engage in the practice of medicine to record their authority in accordance with said statute, and

"*Whereas,* said law is being flagrantly violated every day, in almost every city or town in the State of Texas, resulting in the innocent sick being improperly diagnosed and treated, and often in the untimely death of the uninformed at the hands of quacks, who at the most have only a limited amount of knowledge of medicine, and no authority at all to treat diseases, therefore be it

"*Resolved,* that we, the Fourth District Medical Society, in session, request the district judges in the several districts of the State of Texas, to make it a part of their judicial charge to their grand jurors to investigate alleged violations of this righteous law, and indict those who are practicing medicine without complying with said law; and that district and county attorneys be urged to lend their official assistance in the proper enforcement of this law, as they are doing in the proper enforcement of other laws are being violated."

Registered Pharmacists and Registered Physicians.—The druggists of Amarillo recently undertook to educate the public to an appreciation of the services of registered pharmacists, in contradistinction to the service of just anybody who could count pills or weigh out powders and wrap them up. The same sort of campaign was conducted in Sweetwater, Abilene, San Angelo and Lubbock, and perhaps other communities in the State. If it is important that prescriptions should be filled and drugs sold only by those who know and have demonstrated their knowledge of such matters, how much more necessary is it that those who diagnose and treat, no matter by what method either is done, should have had their basic qualifications demonstrated to the satisfaction of the State! Commenting upon this campaign, and that of the State Medical Association for the enforcement of the medical laws of the State, the *Amarillo News* had the following to say:

"The Texas Medical Association is beginning a campaign against persons who do not hold licenses for the practice of healing, as prescribed by law. If the purpose be to see that the state laws are followed, and not one merely of persecution of other methods of healing, then the campaign deserves general support. Dispatches indicate that even some members of the regular medical line will be treading dangerous ground should the state laws be strictly enforced.

"Whatever action is taken in enforcing the law, only the public's welfare should be considered. Enforcement of the law should not take the viewpoint of trying to obtain a selfish monopoly for the medical view of healing.

"It is correct for any line to unite to show the public its advantages. But the News believes that this confidence should be obtained by education, not by an effort to obtain by selfish legislation. For instance, the News thinks it is far better for Amarillo druggists to convince the people why they should buy certain products from them rather than to find it necessary by law to make the purchases accordingly."

The Roster Plan of Publicity, of which we have spoken before and which is intended to accompany the effort to successfully prosecute violators of the Medical Practice Act, is being developed rapidly, and practically all of our county societies where prosecutions are in progress, have adopted it. Occasionally a society complains that it should be entirely free from expense in this connection, in view of the fact that our dues were raised for this purpose. The State committee stands ready to contribute liberally to the support of such a campaign, where results may be expected and where the medical profession is not able to furnish all of the funds needed, but attention is called to the fact that the funds at the disposal of those in charge of this movement are not and cannot with reason be expected to be sufficient

to pay all of the expenses of the campaign. The overhead necessary to manage affairs, and the cost of that part of the campaign not pertaining directly to the individual society, and much of it that does, is considerable. Where activities are strictly local it is reasonable to expect that the necessary funds will be raised locally. Two things are certain: More money than the surplus represented in the raise of dues will be spent, and the utmost economy will be exercised in the spending thereof, and a full accounting will be made in due time, as per usual.

We are again publishing the facsimiles of a few of the ads that have been put out by county societies, and some of the advertising matter of the opposition. We trust these will prove of interest to our readers.

Masseurs May Not Practice Medicine.—Some of the chiropractic ads emphasize the misleading statement that they are masseurs and therefore exempt under the Medical Practice Act. The definition of the practice of medicine and the exemption clause, are very cleverly arranged to lead the unwary reader to the conclusion that they are not and should not be required to go before the State Board of Medical Examiners before being allowed to practice their art. While the statement is clear cut and emphatic that masseurs are exempt "in their particular sphere of labor, who publicly represent themselves as such," very few laymen will stop to consider what constitutes the "particular sphere of labor" of a masseur. And, of course, very few laymen, even among the lawyers, will know that the courts have long since decided that a masseur may not hold himself out to the public as in a position to relieve people of illness or deformity, or prevent them from becoming ill or deformed, by the practice of massage or anything else. It is or should be quite clear that no matter under what name a treatment is applied its effect is the same, and that the important thing is to know the existing condition and what the effect of treatment will be. If a masseur by his manipulation succeeds in rupturing an appendiceal abscess, which has been done on more than one occasion, it makes little difference to the patient whether the damage has been done as a masseur or an illegal practitioner of medicine; and the difference between the two is simply that the masseur plies his art under the direction of the physician who is in a position to know that the abscess is there and that manipulation may

Will Go To Trial

on Monday, November 2nd, 1925, H. A. Bennett, Chiropractor, will go to trial on a charge of "Practicing Medicine Without a License."

SHADOWS OF THE "DARK AGES" STILL CAST THEIR PALL

The advertisement (opposite) does not need a commentary!

It's the age old story: If a Galileo discovers the earth to be a sphere and not flat, he must therefore pay the penalty of martyrdom. If a Harvey discovers the circulation of the blood, 'tis the same.

World history is pregnant with the story of unjust persecution, jealousies, bigotry, intolerance.

"Prejudice does not pick its victims." The man that conceives a new thought, idea or discovery, has launched his craft on a turbulent sea. The fact that humanity is to be enriched in mind or body is a mere incident! The traditions of the fathers must remain inviolable. He who violates custom or tradition has committed treason against the cult, and becomes the hunted, haunted victim of tradition sticklers, and the guardians of a fictitious ethical standard.

The case in points presents several interesting aspects. H. A. Bennett, a reputable Chiropractor, and a graduate of a first class Chiropractic College, Chartered by the State of Texas, practices a science that can and does restore health. A method that has been tested in thousands of cases and has proven beyond the shadow of a doubt that it is all that has ever been claimed for it. Do it may be all this and even more than is claimed, you must NOT tell the world about it! Until the recent Texas Press Association Meeting in Tyler, June 19th to be exact, it was UNETHICAL to advertise. Therefore, let those who suffer continue to do so. It is naught that from three to five millions of people in the United States have chosen Chiropractic as their health method, that twenty five millions of people are menaced by disease. Whatever you do,—DON'T tell them of a Method that might save their lives. Especially DON'T tell them thru the medium of the PUBLIC PRESS, (when you have to pay for it.) TO PAY FOR SUCH ADVERTISEMENT WAS THE BIG CRIME (until the above mentioned date) let these millions DIE—BUT BE ETHICAL.

Just a moment, PLEASE—

Until recently the LARGE DISPLAY ADVERTISEMENTS were taboo by the gentlemen, a copy of whose ad appears above: Propaganda—subtle razor blade stuff aimed at other systems of healing *"Who followeth not after us."*

We will not attempt at this time to tell you of the many merits of Chiropractic. We do however, direct your attention to the several testimonials appearing on this page. Also the list of names. We will, without comment, let them speak for themselves.

Facts Concerning the Medical Profession

Here are some of the things that the Medical Science has done for the world (not everybody knows to be true: Yellow fever and cholera, which once swept our Southland is unknown. Small pox has been relieved of its dread; diphtheria has been reduced by antitoxin from a frightful mortality of nearly 100 per cent to a reverse ratio. Pasteur stayed the ravages of hydrophobia, he will never die, but live on in the hearts of grateful humanity. Typhoid fever is caused by a germ, and to prove it the disease is prevented by serum. Malaria is caused by a germ, and it is carried from one person to another by the mosquito, and quinine is a specific. Consumption is caused by a specific germ; measles, scarlet fever are contagious. Lock jaw is prevented by anti-tetanic serum, cancer when not properly treated early, kills. Sanitation has made the Panama a garden spot to live in. The average life of a man has been extended from 33 years to 58 years in the last decade, according to life insurance statistics. These and many other blessings to mankind have been achieved by orthodox science. The medical service has raised its standard year by year in order to safeguard the health of humanity. The guarantees of scientific medicine must be preserved. The medical profession stands behind the law of Texas in its endeavor to uphold these standards in obedience to the law. All good citizens have a duty to perform in this matter. Christian institutions, civic societies and publicity mediums should cooperate with the medical profession in its endeavor to uphold its present high standards which means so much to health and happiness of the state of Texas. The medical profession believes that it is very unsafe for public health for any one to practice the art of healing human ills in any manner whatsoever, unless he or she has first acquired a standard knowledge of the human body as prescribed by the law of our state. The courts have been very patient with offenders against this law. The public has been confused by insidious and plausible propaganda. The nerves providing over highest vital activities originate in the brain and pass to the heart, lungs, liver, stomach and other vital organs without entering the spinal column, and they are not influenced for curative purposes nor is a way to cause disease by spinal manipulation. Spinal dislocations are not a result of spasmodic action. Severe injury of a spinal nerve is usually attended by paralysis. The Van Zandt County Medical Society believing that it it its duty to safeguard the health of the public so far as it is in its power to do so is hereby taking an open stand against any irregularities of whatsoever form in the art of healing, having a tendency to endanger the health of human beings. It backs the courts in their endeavor to enforce these laws.

The Van Zandt County Medical Society

Members in Good Standing:

NOAH W. ANDREWS, M. D.
BEN E. BRANDON, M. D.
FELIX V. BRYANT, M. D.
MARION L. COX, M. D.
V. BASCOM COZBY, M. D.
D. LEON SANDERS, M. D.
CLARENCE E. WILLIAMS, M. D.
HARRY T. FRY, M. D.
WILEY L. GARLAND, M. D.
WILLARD C. HEARIN, M. D.
HORACE HOLLIBAUGH, M. O.
FRANK L. LEE M. O.
LEONARD W. SHOEMAKER, M. D.

Each of the above is registered with the district clerk as required by law.
COPY OF A RECENT AD APPEARING IN THE VAN ZANDT COUNTY PAPERS.

We the undersigned, are willing to state under oath that we were benefited by Chiropractic Adjustments given us by H. A. Bennett, D. C. And are willing for same to be published.

Mrs. Oscar Carroll
J. F. Mitchell
S. F. Mitchell
W. M. Bailey
H. F. McPhail
R. E. Armstrong
W. H. Chaney
W. P. Shivers
Mrs. R. M. Simpson
Arthur Hearn
Mrs. Joe Wilson
Mr. & Mrs. F. Bass
J. B. Davis
J. H. Fitzman
Mrs. Daisy Ray
Wm. F. Bass
Jim Vaughn
Mrs. Mary Vaughn
N. M. Shivers
Kelly Conley
Joe Hawkins
Mrs. Joe Hawkins
Mrs. John Dunbar
Mrs. Cosie Hooks
W. G. Sillings
John Dunbar
M. L. Deaton
T. L. Jackson
A. F. Adrian
R. L. Brown
Uncle Joe Clark
Mrs. Joe Clark
A. J. Bass
Miss Jessie B. Adams
V. E. Taylor

The Crime

Grand Saline, Texas
June 28, 1925.

To Whom It May Concern:

On December, 19th, 1924, our daughter, Leola Lee, took sick and for a period of eight weeks suffered severely with what the doctors said was an inflamation of the whole nervous system. Neuritis, and for about the last forty two days of that period was unconscious.

On February 16th, 1925, we called a Chiropractor, E. P. Bunn, D. C., of Mineola, Texas, who with H. A. Bennett, D. C., of this city assured us of her complete recovery in a weakened condition.

She knew nothing of the first adjustment but partially regained consciousness on the fourth day. After the days adjustments her mind was perfectly clear she continued to improve from then on and had gained (about 15 pounds by the fifth day. (She weighed about 95 pounds at the time she started taking adjustments.)

In all we had eleven Medical Doctors and turned to Chiropractic only after they had all informed us the case was hopeless.

We give all credit to Chiropractic for our daughter's restoration and heartily recommend it to people who have lost their health.

Mr. A. L. Taylor,
Mrs. A. L. Taylor.

Sworn to and subscribed before me this, the 29th day of June, 1925

Nat M. Crawford,
A Notary Public in and for Van Zandt County, Texas.

Mineola, Texas,
August 3, 1925.

To Whom It May Concern:

My wife had been suffering for a period of fifteen years, thirteen of which she was constantly under the care of Medical Doctors. For four years of that time she was practically an invalid and was unable to do any work at all. Her case was finally diagnosed as Chronic Appendicitis and an operation was advised, although the case was considered on almost hopeless case.

Finally we were urged by friends to see a chiropractor, which we did in May, 1925, taking her to H. A. Bennett, D. C. of Grand Saline, Texas.

At that time she weighed about 78 pounds. After taking Chiropractic adjustments for 3 months she had again regained her normal weight and was able to do her own house work, a thing unknown to her for years.

I look upon it as a piece of good fortune that your wonderful Chiropractic work was called to my attention, after everything else had fail d, and it is extremly good to know, (as both of us, that through the work of your hands she has improved to such an extent that life has become once more well worth living.

W. F. Ellis.

The State of Texas County of Van Zandt.

Sworn to and subscribed before me this, the 4th day of August, 1925.

J. C. Allen,
A Notary Public in and for Van Zandt County, Texas.

Grand Saline, Texas.

To Whom It May Concern:

For many years the undersigned was a great sufferer of liver, kidney and stomach trouble.

I tried many Medical Doctors and bought and tried every patent medicine and home remedy that I could hear of and got no worthwhile relief. My average weight was 135 pounds. Now my weight is 162 pounds. My life was no pleasure.

On or about December 16th, 1923, I began taking Chiropractic adjustments from H. A. Bennett. After taking a few adjustments I began improving, and since about four months thereafter, I have been and am now a well man. My liver is fine, and my kidneys and I now never have a symptom of stomach trouble.

Therefore, I can recommend Chiropractic to those who suffer with similar troubles. I believe Chiropractic is a God sent blessing to suffering humanity.

(Signed) J. M. Shivers.

1st. I use no medicine.
2nd. A Medical Education does not qualify Medical Practitioners to examine Chiropractors in Texas. No Chiropractic examinations were ever held in Texas.
3rd. A Chiropractor is refused the right to take the State Medical Board Examination because he holds a diploma from a Recognized Chiropractic College instead of a Medical Diploma. Hence, regardless of his qualifications, he is refused the right to be examined because of this fact.
4th. I am more than willing to take an examination to practice Chiropractic.
5th. Recent trials of Chiropractors in this State resulting in verdicts of NOT GUILTY were E. P. Bunn, Mineola, who was tried three times, W. V. Shaw, Longview, who was tried five times, Clyde Hobbs, O'Donnell, R. A. Walker, Brownwood, and many others too numerous to be mentioned here. It has become the PEOPLES' fight for liberty—the right to choose the healing method of their choice.

H. A. BENNETT, D. C.
VAN ZANDT'S PIONEER CHIROPRACTOR

A. W. Grier
Ike Bailey
W. E. Fitzgerald
Mrs. A. E. Pal
Mrs. G. W. Smith
C. P. Anderson
Arch Allen
Mrs. Ezra Allen
Mrs. Maggie Bradshaw
W. Shivers
Mrs. F. V. Rhodes
C. T. Rhodes.
Mrs. Tom West
Mrs. J. C. McCullough
S. C. McMahon
Mrs. Beulah Sprague
O. C. Neil
Mrs. D. J. Mays
R. A. McCauley
Mrs. Nettie Fields
Mrs. Amanda Smith
Abbel Smith
W. C. Gordon
W. T. Pearce
Geo. Bell
Mr. Dave Woodman
Rev. A. W. Weintsch
Geo. Dorough
Wesley Ray
Mandy Standfield
S. F. Morse
W. O. Crocker
W. B. Bent
Mrs. A. F. Ayers
Mr. & Mrs. A. Adams
W. Berry
Zach Stuart
W. R. Crocker

This is only a representative list. We regret that we cannot afford to buy more newspaper space.

FIG. 5. This is a fair example of a group of several ads of this sort, and we are trying to reproduce it on a scale large enough to make it legible. Note the inclusion of a very good ad put out by the Van Zandt County Medical Society. While we fail to see the advantage of reproducing the county society ad, quite probably many readers will think that the claims made in the former have thus been refuted. The inclusion of the names of patrons of the advertising chiropractor is more or less effective. In this connection, we wonder what Barnum would have done had he undertaken to record the names of *his* "Minutemen."

bring about a rupture, and, above all things, that the manipulation in any instance would accomplish nothing good for the patient, while the illegal practitioner of medicine *assumes* to know that the abscess is there and what the particular treatment he proposes to try will do in the face of that fact. If he has not been examined by the State, he may or may not know these things. If he has been examined by the State and licensed, unquestionably he is *in a position to know* them. It would seem clear where the interests of the patient lie.

One of the most astonishing pieces of publicity put out by the cultists is what purports to be a letter from a young lady, in which many ridiculous claims are made, among them that the Mayos directed her to consult a chiropractic "masseur," who at the present time is living in one of our larger cities. Of course, the Mayos did no such thing, and it would seem that any newspaper editor would know that they did not and would refuse publication of such a claim. As it happens, this particular practitioner had the misfortune to lose a patient, before removing to his new location, apparently as the result of the vigorous treatment administered. The patient's leg was fractured and death ensued in a short while. The telephone address given by the young lady writing the article turns out to be the telephone address of the alleged chiropractic masseur. Any reader may have three guesses as to the reliability and the purpose of the communication.

The *Brownwood News* quotes an item from the aforementioned *Gaudalupe Gazette Bulletin,* covering the alleged cure from the malady sometimes diagnosed as sleeping sickness, by a chiropractor after everything else had failed. The *Ballinger Ledger* prints an item written by a chiropractic masseur, in which the attempt is made to show that the medical profession has been guilty of much malpractice on its own account, and for that reason is not in a position to criticize chiropractors. Quotations from distinguished doctors tending to discredit the medical profession, are given. Most of us could recite these misquoted and misconstrued items verbatim, so often have they been used in this manner. The writer is evidently oblivious of the fact that the medical profession is striving with might and main to educate and reeducate its own practitioners. Granting for the sake of argument that the charges are true—which may not, of course, be granted, even for that purpose, that educated physicians who are honorable and kindly in their very fibre could do the damage alleged, how much more likely would these and much worse injuries occur when and where the practitioners are ignorant and misinformed on the fundamental sciences used in the practice of medicine?

Chiropractors to Continue Campaign for Special Law.—One of the important developments in this campaign is the apparent revival of interest of chiropractors in each other and their organizations. The press is loaded with items referring to district and state meetings, and the statement is heralded abroad that the next Legislature is expected to enact a law authorizing the practice of chiropractic—as if the demand to that end were new. These dispatches do not state that most strenuous endeavors to this end have been made in the several sessions of the Legislature held during the past few years, and always with increasingly poor success. Much is said about the fact that many of the other states of the Union are licensing chiropractors, as if that would have anything to do with the situation in Texas. As a matter of fact, constitutional grounds are different in Texas from those found in any other state, which has a good deal to do with the development of laws pertaining to the practice of medicine. Incidentally, if some states are less particular in their efforts to protect their citizens against ignorance in the sick room than is Texas, that is to the credit of the Texas Legislature.

One newspaper, the *Trinity Tribune,* occupies a rather peculiar position in this regard. The editor evidently thinks he is occupying the same high ground the medical profession occupies in this matter, and his views are to be commended if amended in accordance with the facts in the case. His assumption is that because doctors are expected to qualify by examination, others who would practice some part of medicine should qualify to the extent that they do so, and along the lines of their endeavors. If he would say that all who desire to do the same thing, or any part of the same thing, should take the same tests, then his attitude would be a correct one. The item follows:

"The next session of the Legislature promises to test the respective strength of the practices of healing the sick, the proposition evolving about the medical doctors or those who practice other healing methods.

"There is a strong possibility that a bill will be introduced which will provide for like examination for all those who would practice healing in any form.

"This should be passed, then enforced. The various 'practors' of the State would have themselves thrust upon a gullible public without even a pretext of an examination, yet the laws force a medical doctor to prepare himself with several years of college, not to mention the time served as an interne.

"If it is fair, and the Tribune believes it is, to ask

doctors to take such a rigid examination, then it is doubly fair to ask those who would heal by other methods to take an equally as rigid examination. People of Texas should profit by the expose of the gigantic 'diploma mill' in Missouri and keep the misfits out of practice."

Comments on Our Enforcement Campaign.—Not all of the comment in the newspapers, by any means, is unkindly critical of the medical profession and its attitude towards enforcement of the Medical Practice Act. We have heretofore published very commendatory editorial references. Perhaps a middle-ground item of value in this convention, is that published by the *Grapeland Messenger*, from which we quote the following paragraphs:

"Whatever action is taken in enforcing the law, only the public's welfare should be considered. Enforcement of law should not take the viewpoint of trying to obtain a selfish monopoly for the medical view of healing.

"The public health is the first thing to be considered, both by the doctors and the newspapers, and herein comes a conflict. The medical profession is divided within itself, which creates a situation that gives a wide latitude for the laity to disagree with some or even all of the different schools of medicine.

"Dr. Rosser's plea before the Texas Press Association was based on law observance or, more specifically, an observance of the Medical Practice Act. The newspapers as a whole stand four-square for law observance and law enforcement, but do the doctors come to the press with clean hands along the line of law observance? Is their motive in this particular instance, like the character of Caesar's wife, above suspicion? Is the Medical Practice Act the only legislation the doctors want enforced? So far, we have seen no appeal from them for a united and uniform observance of all the laws relating to the practice of medicine. The vital statistics law pertains exclusively to physicians. Then some few years ago the Legislature passed a law relating to venereal disease, with some rather drastic requirements for doctors. Does the Medical Association of Texas want these two enforced to the letter with the same enthusiasm they want the Medical Practice Act? There's a lurking suspicion in the mind of the newspaper folk that they, the doctors, are interesting themselves more in the laws that bring them profit than they are in observing those passed for the good of the general public, and this idea was expressed on the floor of the convention last week.

"However, there's a common ground upon which the doctors and the press may meet; they can unite in a bold stand for the observance and enforcement of all laws."

From the *Dallas Journal* we clip an editorial which appeals to us as indicative of the proper attitude from the standpoint of the layman:

"The plans which members of the Texas State Medical Association are furthering to insure thorough enforcement of the Medical Practice Act, are, on the word of the Association's President, Dr. C. M. Rosser, for the protection of the public and not for the benefit of any one school of medicine. The intention of the organization, as openly avowed, is to drive from Texas the unfit and unlegalized practitioner. That purpose will be approved by the general public, the Journal believes, and even by tolerant-minded citizens who would protest the exclusion of the reliable practitioner of any school.

"The public health is a matter too important to allow the ignorant and the unfit practitioner to hazard it. New methods will be evolved as long as the science of treatment challenges study and sanctions experiment, just as new medicines are evolved. But those who subject their bodies to such new methods should have assurance that the men who practice them are informed and competent.

"The right and well-being of more than the individual are involved. The public at large is concerned, and in the case of communicable diseases may be vitally concerned. Protection of the individual against practitional ignorance and quackery means protection of the citizenry of Texas as a whole. There is no tolerance and no favoritism in any movement which is justly designed to eliminate the unfit and inexperienced who operate in the field of medical practice. It is based upon ordinary common sense, and should succeed."

The *Dallas Journal* had another thought in this connection, which was very forcibly expressed in an editorial. In this discussion the medical profession is called to task for some of its shortcomings, and we must admit that much of the restrictions are justly applied, although there are extenuating circumstances, and points out that the public would sympathize with the present effort to enforce the laws pertaining to the practice of medicine if the physicians would themselves properly regard these and other laws which apply to them.

Comments on Our New Publicity Policy have been varied and quite interesting. For the most part our critics have been very kind, and only here and there have our motives been impugned and our purposes misconstrued. However, some of our friends, in trying to agree with us, have assumed an attitude quite at variance with our position. For instance, a physician from another state quite warmly commended our efforts and supplied us with a discussion on the subject of newspaper publicity which he evidently considered in line with our policy. This author complains that our principles of ethics forbid the doctor from buying advertising space but permits him to accept all of the publicity he can get for nothing. This is, of course, not the case. Some of our members who have been held to task by their county societies, will warmly support us in this contention. The assumption of this author that the only difference between ethical and unethical advertising is the price, is very much in error so far as we are concerned in Texas. We have never permitted the individual to advertise his skill and do not now propose to do so. It is important that all and sundry understand that. A physician could no more brag upon himself in print, or on his equipment or his opportunities for rendering a service which it is his privilege to render, notwithstanding

that he, perhaps, makes his living that way, than any gentleman could afford to brag upon himself in personal conversation or publicly, either as to his personal skill or ability, or the equipment of his home or place of business. It would seem that any thoughtful person would appreciate the difference between advertising personal ability and merchandise. In the one instance the prospective purchaser, be he ever so wary, is hardly in a position to judge of the wares, while in the other, no matter how ignorant the purchaser may be, some care can be exercised and he can beware if he will.

Our author uses as an illustration the "asinine policy and antiquated system of ethics" which heretofore has prohibited advertising the development of chlorine gas as a treatment for bad colds. He recites the fact that Army medical officers developed this treatment but nobody heard of it and it was not used generally, until the newspapers got hold of the idea, following the treatment of President Coolidge. A further example is recited, based on the Dr. Lorenz affair, both as to its inception years ago, when that noted orthopedic surgeon treated Lolita Armour, and the later day when he came to this country, presumably to repay the debt his country owed the people of America for their aid in saving its starving children. On the occasion of the first trip of Dr. Lorenz, it seems, nobody paid much attention to him, but the second time he returned he was so beset by applicants for his ministrations that he had to beat more than one hasty retreat; this notwithstanding there were numerous American orthopedic surgeons in each large center quite capable of performing the same service. Here we are getting just a bit closer to our problem, and our critic may find justification for his restrictions in general if not in particular. It is our present contention that the good possible now by the use of scientific medicine should be given to the public, and in large and ample doses, but without reference to the individual. If the people want to know which doctors can do these things, they can begin with the medical registry in their respective communities, and select a medical adviser. He can tell them all they want to know about our specialists and the leaders of medicine in its several fields.

Several of the most interesting newspaper comments on our new policy, maintain that the doctor should advertise, on the ground that the individual has the right to know where to go to get adequate medical service, and that this information can best be given through *truthful* advertising by the practicing physician. Aye, there's the rub. Who is going to decide whether the individual advertiser is telling the truth or not telling it? Of course, if we know the doctor well enough to know that he is an honorable man, we can believe him; but, if we know him that well we do not need to have him say, through paid or other sort of advertising, that he is capable of meeting our requirements in a medical way. State Press, in the *Dallas News,* comments on this very phase of the situation quite emphatically. The writer made one mistake in his discussion, however, which will be readily noted. He is of the opinion that doctors are not averse to keeping their names before the public in one way or another, and that they like to make public speeches and get credit for it, and even like to get in the back row of group photographs that are to appear in the press. If State Press had had the experience we have had in the past two years, he would not hold to these views. It was with the greatest difficulty and upon the application of the greatest pressure at our command, that we have been able to get any doctor known to us to be capable of making impressive public speeches, to get into the game, notwithstanding we stood ready to pay all expense, and even furnish the pabulum for the addresses. Not only that, but we stood ready to write the addresses, and did outline them. The comment of State Press follows:

"Doctors' ethics forbid advertising for the reason that the medical profession believes that in a bragging contest between a liar and an honest man the honest man will always come out second best because his conscience will keep him from making the exaggerated claims that the former has no hesitancy in making. When a doctor comes to town he is permitted under the medical code of ethics to carry an advertising card in the papers for a certain length of time. Or, when he changes his office, he is allowed to apprise the public of the fact. But the physicians frown upon any member of the profession who uses up a lot of white space in trying to sell his personal services much as if they were soap or motor oil. Perhaps the doctors are right; in the larger sense they are trying to protect the public from the quack and from itself. There is always a certain percentage of the population that will give credence to the man who talks the loudest and makes the most exaggerated claims. But doctors are not averse to keeping their names before the public. State Press has yet to see one who even went on so short a visit as a week-end trip who didn't phone to all the papers and permit them to make mention of the fact. Also there are plenty of doctors in every town who like to make speeches and get credit for them in the public prints, or who fall over themselves entertaining prominent visitors to the end that they may be standing in the back row when the group photograph comes out the next morning. State Press was not aware that the Texas Medical Association had lifted the ban so as to permit the reputable practitioners to band together and use paid advertising in an educational war against quacks and harmful nostrums, but he is glad to hear of it. This kind of advertising can do nothing to put any self-respecting doctor in the wrong light, and at the same time it will be

very effective in aiding the public to separate the sheep from the goats."

Quite in contrast with this very good discussion of a serious problem, is an item from *Lufkin Courier,* which we quote next. The author of this comment evidently is a reactionary, to be polite about it. He would have us revert to conditions confronting us many years ago, while enjoying the advances that have come because of the development of scientific medicine. He wants to have doctors supplied on a "quantity production" basis, assuming that the present very agreeably healthful conditions would continue, thereby diminishing the necessity for well equipped physicians. He is doubtless a sympathizer with the half-baked variety of pseudo-physician. Of course, the doctors have no union, and their whole effort is to see that their people are properly protected from assault either by disease, ignorance or quackery:

"Last week at Tyler, Dr. Rosser of Dallas, told the newspaper men at their convention at Tyler, that the Dr.s had decided to advertize in the papers; and they wanted the papers to help them make the Dr's close union strong by refuseing to accept advertizing from any Dr. who was not licensed by the state board of examiners. We remember, 40 years ago, Matt Denman borrowed eno cash to go to Tulane, at New Orleans, and take a course, he came back and practiced a while, made eno to pay uncle Marion Bates his money and go and take another course; then practice between courses until he graduated, and for his day and time was accounted one of our best physicians, but his son's (if they agree to the present 4 years courses before practicing) would stop up this avenue for an obscure poor boy to come up by making the road almost impossible while trying to build up a strong union that only the wealthy could hope to enter: tho claiming it was an endeavor to protect the health of the people. Dr. Matt Denman would if living at his prime, have stood in the front ranks of local Sawbones. We don't believe that average young man or woman would hesitate to call in an old Dr. for consultation, if they felt they could not diagonize a case; and we think any young man, with a fair English Education should have a chance to enter any calling and work his way up; without having to put in 7 or 9 years before he could get pay for his work. Under the guise of protecting 'Paternalism' Unions are building class 'cast' distinctions in a democracy."

The *San Saba Star* was quite frank about the whole business, as the following brief reference will show:

"The medical doctors of the State had a representative at the State Press Association meeting in Tyler last week and he wanted the association to go on record against a class of doctors who advertise. It occurs to us if it is unethical to advertise an M. D.'s business, it would be unethical from a business standpoint for a newspaper to kill the goose that lays the golden egg by knocking a 'healers' business who rubbed your pains away instead of using a knife or taking a course of medicine. They are getting this 'ethical' dope down to a fine point and in the main it all depends on whose ox is gored. If an intelligent person wants to use Christian Science or the osteopathic method of treatment, it is no one's business so the patient thinks he gets what he pays for."

It is a strange course of reasoning that would lead to the conclusion that because doctors won't advertise newspapers would be justified in accepting the advertising of quacks. The test should be whether the quack is hurting or helping; and if the one, he should not be encouraged; if the other, he should be encouraged. The attitude of the doctor has nothing to do with it. Also, the assumption of this editor that an intelligent person should have a right to select any sort of treatment he wants to is rather beside the point. Our contention is that the State should determine who are basically qualified to practice medicine and then let the public do the choosing as between the claimants for the different systems of practice. As a matter of fact, the medical profession does not so much object to the injury of intelligent people who should know what they are doing when they employ physicians, but does object to the abuse of innocent children and defenseless women.

In a brief reference to the subject, the *Bonham Favorite* charges the medical profession with being generous enough to adopt a code of ethics for newspapers, and rules for the regulation of the newspaper business, following the perfection of its own Principles of Ethics and the regulation of its own profession. The fact is entirely overlooked that the ethics of the medical profession that are being contended for in the present instance are based principally on the ethics of the newspaper publisher. Surely the *Bonham Favorite* has heard of the slogan, "Truth in Advertising." Surely, also, this honorable publication knows that much of the matter contained in the average advertisement of the average quack is anything else but the truth, and that it is not ethical, from anybody's standpoint, to advertise a would-be violator of the law. Prohibition laws make it an offense to advertise a would-be violator of the prohibition laws. The same principle applies here, even if the Medical Practice Act is silent on this point. The contention will be, of course, that there is a difference of opinion as to whether the practice of some of these quacks constitutes a violation of the Medical Practice Act. While that is true, strictly speaking, legally there is no difference of opinion on this point. The courts have uniformly held that most of these practices are in violation of the law.

But the prize comment of them all is the following brief item from the *Hebbronville News,* and with this choice illustration of the difficulties met with by the press as a whole

in properly educating the public, we close an already too long discussion:

"The Texas Medical Association calls it 'unethical' for doctors to advertise in the newspapers, but it loses no time in calling of the newspapers to help it put over some of its own selfish and arbitrary schemes. And some of the newspapers, we regret to say, are foolish enough to fall for the brazen appeals of this growing octopus, which styles itself the Texas Medical Association and whose tyranny and oppression increase as it grows in size and strength. And although the Association taboos advertising in the newspapers, yet when one of its members performs a difficult and successful surgical operation, or saves a patient from some desperate disease, he is offended and slighted if a paper mentions the case and omits his name from the free advertising."

Insurance and Chiropractic Certificates.—One of the chiropractic ads coming to our attention calls upon the public to take out sick benefit policies only where the insurance company will pay claims on chiropractic certificates. In view of the fact that many of the companies do accept such certificates, and the further fact that the more substantial companies charge an additional rate for insurance where the insured is to patronize cultists, this demand is of interest. In this connection, we are presenting a letter from a chiropractor, such as would have to be accepted by a company agreeing to the demands above suggested. We would like to give a facsimile, but the letter will not submit readily to the necessary reproduction. For obvious reasons we are omitting reference to persons and places. The letter follows:

"Acclusions and rotations in the Vertebral Column. (1) The Atlas is turned to the right, also going Ventral as a whole. In this case the left transverse is under the Mandible. (2) The Axis is looking to the left with its body throwing the spine to the right of the Median line. (3) Slight Acclusions at the 7th Curvical and 1st Dorsal, causing a slight bronchial trouble and dullness in the upper limbs and hands occasionally. (4) The 4th and 5th Dorsal nerves partially acclouted, causing disturbances in the stomach. (5) The 6th and 7th Dorsal making disturbances with the liver, also the 11th and 12th Dorsal, 2nd, 4th and 5th lumbar which would give trouble at the kidneys, transverse Colon, Pan Creas, and the Small Intestines. (6) The left enominate has gone headward on Sacrem, causing a slight shortness in the left lower limb. (7) A Base Dorsal Sacrum."

Shall There Be a Federal Occupation Tax for Physicians? No. There already is one, and the most strenuous efforts on the part of the medical profession have so far failed to remove it. Congressional committees having the matter in charge have repeatedly been petitioned to wipe out this discrimination against perhaps the only profession or business in the country which devotes a large part of its endeavors to relieving distress and suffering without hope of compensation. Recently, the Committee on Ways and Means of the House of Representatives held a meeting in Washington for the purpose of providing amendments to the various tax measures, in view of the fact that the government has been steadily piling up a surplus each year for the past several years. At this hearing Dr. Chas. W. Richardson of Washington, a trustee, and Dr. Wm. C. Woodward of Chicago, executive secretary of the Bureau of Legal Medicine and Legislation, represented the American Medical Association. These gentlemen made a most logical and convincing plea for the abolishment of the increased war tax on licentiates under the Harrison Narcotic Law, with what effect we cannot say at this writing. The situation is deemed of sufficient importance to warrant us in suggesting, and even urging that each physician in the State of Texas write to his Representative and his Senators, in an endeavor to convince these gentlemen that of all war tax measures this particular one should have been abandoned first, which is contrary to the facts in the case, this being the last measure of that sort to receive consideration.

Resolutions objecting to the continuation of this particular war tax have been unanimously adopted by the previous two sessions of our House of Delegates, and our Congressmen have been furnished with copies thereof. The last resolution reiterated its protest against this taxation and further called upon Congress to provide for a reduction of the "red tape" and "interpretations" which but served to inhibit the physician in his movements of mercy and in the convenience of his practice. The resolutions suggested that at least the interpretations could be so simplified as to meet a large part of the objections of the medical profession. Whether this resolution has accomplished anything remains to be seen. What the Ways and Means Committee decided upon at the meeting referred to we do not know at this writing. The ranking Democratic member on this committee is from Texas, the Honorable John N. Garner of Uvalde.

The Harrison Narcotic Law was enacted in compliance with our international obligations in the matter of the control of traffic in habit-forming drugs. It is not possible for the Federal Government to enact laws infringing upon the police powers reserved by the states, hence this law is a tax measure. It was not originally intended that it should raise any particular revenue for any particular purpose, but it was, very naturally, provided that the money thus raised be used in the enforcement of the law. Doctors raised no objection to this, except that in the beginning there was some trepidation because of the inherent fear of the medical profes-

sion of the red tape involved. It was realized that doctors, being exceedingly busy men and concentrated on their respective missions of mercy, were not habitually disposed to promptly comply with arbitrary demands, both as to deed and time. However, this objection was overcome in the light of the conviction that traffic in habit-forming drugs must be controlled or the moral fabric of our civilization would be seriously injured.

When we entered the World War it became necessary for us to raise money by a great variety of means, and the simplest procedure was, of course, to increase the taxes from existing tax measures. This was done in the case of the Harrison Narcotic Law, notwithstanding that it was not looked upon properly as a tax law, to which procedure the medical profession, in its patriotic zeal, raised no objection. It will be borne in mind that this tax was trebled. Whether any other tax was increased to that extent we do not at the present time know, but when the State Medical Association raised its own dues 300 per cent, there was considerable objection. When the War had been concluded in our favor, thanks to the efforts of the medical profession, among the other groups of our citizenship, and the need for revenue was immensely decreased, it was expected that among those laws of this character to receive first attention would be the Harrison Narcotic Law, for the reason as we have said, that this law was never intended to be a revenue bearing measure. However, the anticipated reduction has not been made and we cannot anticipate when it will be made. Its continuation serves as an occupation tax, and there would appear to be no more reason why the medical profession should pay such a tax than that other special groups should be so taxed.

While the tax is individually small, so far as we of the medical profession are concerned, in the aggregate it amounts to a great deal. Indeed, we are told that for the fiscal year ending June 30, 1924, the net income from this source was $1,057,066.33. The cost of administration of the law was $709,790.66, which left the Government a profit of something more than $300,000, and saddled the cost of enforcing the law on the medical profession, which, again we will say, could no more justly be taxed for this purpose than any other vocation, avocation or calling. Indeed, it would be more just to require those who benefit most from narcotics, namely, our patients, to pay the cost of administering the law. It is strange how legislators who otherwise reason well, could assume that such a tax as this on such a profession as our, should be continued, when there is no other occupation tax on any other professional group.

Taxing the Doctor for Improving His Professional Status.—That is what the refusal of the Commission on Internal Revenue to allow doctors to deduct from their Federal income tax returns the expenses incurred by them in postgraduate study and in attending meetings of scientific societies, amounts to. The law says, in so many words, that in computing the net income there shall be allowed as deductions:

"(1) All the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, including a reasonable allowance for salaries or other compensations for personal services actually rendered; traveling expenses (including the entire amount expenses for meals and lodging) while away from home in the pursuit of a trade or business."

The Commissioner of Internal Revenue refuses to allow this deduction in the case of the medical profession. His reasons therefor are clearly based on a lack of familiarity with the circumstances. We wonder sometimes why this high official has not informed himself. Evidently there is a reason. The following statement from the Deputy Commissioner of Internal Revenues indicates fairly well the attitude of those who have to interpret the income tax law:

"The expenses referred to by you have been consistently held by the bureau to represent a part of the professional individual's training and education which is deemed necessary to fit him for his chosen profession. The professional man's income being derived mainly from the rendition of personal services rather than from invested capital, expenditures incurred in acquiring his knowledge is held to be analogous to capital expenditures in the case of taxpayers conducting a business which requires capital investment. Upon this basis such expenditures are held to be personal expenses."

Recently a new Daniel has come to judgment. The Acting Secretary of the Treasury, in a letter to the Missouri State Medical Association, dated July 8, 1925, made the following remarkable statement:

"Where expenses form an essential element of the services rendered by a physician and are incurred directly in the practice of his profession, deduction is allowed the same as in the case of the manufacturer or merchant whose business involves similar expense. Attendance at meetings or postgraduate schools, while beneficial and even necessary in the broader sense, is wholly optional with the taxpayer, and for that reason such expense is to be treated as a personal expense, and not as an allowable deduction."

As pointed out by Secretary Dr. Woodward, of the A. M. A. Bureau of Legal Medicine and Legislation, this constitutes a new principle which is applicable to all taxpayers alike, namely, that "if an expense is wholly optional with the taxpayer, it is for that reason

treated as a personal expense and not deductible." Dr. Woodward points out that it is wholly optional with the physician whether he keeps his knowledge and skill up to date by books, periodicals and local opportunities for observation, or whether he shall attend postgraduates courses in the larger centers and sit at the feet of the leaders in thought and deed in the medical profession at our great medical meetings. Likewise, it is wholly optional with the merchant or manufacturer whether he keep his equipment and stock up to date through mail order catalogues and local sources of supply, or by personal inspection in the great buying and selling centers of the country, determine just what he needs and what his patrons should have. If the physician goes outside of his home town and seeks to increase his knowledge and skill by contact with his better informed and more skillful brethren, he is penalized for his act, and his people might properly be charged an additional fee for the additional expenditure of time and money. On the contrary, if the merchant or manufacturer leaves his home town and goes to the great mercantile centers of this country and improves his knowledge of his own business, and purchases stock which will be to the benefit of his patrons, he suffers no such penalty and has no such problem before him. It is believed that the law does not contemplate such discriminating application, and it would seem as little as Congress could do for a deserving class of citizens, taxpayers and voters, to fix the law so there may be no opportunity for bureaucrats to discriminate as between those affected by the law. The wording of the law appears to us to be perfectly plain, but it evidently is not so plain to those who must enforce it, and quite possibly it can be made plainer.

The State Medical Association has twice adopted strong resolutions protesting against this discrimination. Our Congressmen have been so informed. The recent meeting of the Committee on Ways and Means of the House of Representatives, held in Washington, took the question under advisement. The American Medical Association was represented by a member of its Board of Trustees and by the Secretary of its Bureau of Legal Medicine and Legislation. These gentlemen proposed two amendments to the Federal Income Tax Law. one authorizing the deduction of expenses incurred in attending meetings of scientific and professional organizations, and the other authorizing the deduction of expenses incurred in postgraduate study. It is believed that these amendments are so worded that their meaning cannot be misconstrued. What the committee did in this respect we do not know, but the situation would seem to warrant us in taking the matter up with our respective Representatives and the Senators from this State, in an effort to make these gentlemen see the justice of our demands. It is estimated that attendance on the meetings of medical organizations alone has cost the medical profession nearly $2,000,000 per year, which, on a 4 per cent basis, amounts to nearly $70,000. We do not know of any good reason why we should be taxed to this extent when merchants are exempted from anything of the sort.

The Council on Physical Therapy, a companion to the Council on Pharmacy and Chemistry, has recently been established by the Trustees of the American Medical Association, and is beginning to function. This Council was requested during the last annual session at Atlantic City, following consideration of a resolution introduced by Dr. Joseph F. Smith of Wisconsin. Dr. Smith in his resolution, called attention to the fact that there is now being and has been for sometime "offered for sale to members of the medical profession and to hospitals, many non-medicinal agents of alleged therapeutic value, consisting of electrical devices, mechanical contrivances, colored lights, various kinds of lamps, etc., the exact nature and action of which the individual members of the profession at large, because of the lack of the necessary technical skill, adequate facilities and instruments of precision, are not in a position to evaluate correctly," and that something ought to be done about it. He was of the opinion that a council on nonmedicinal agents, similar to the present Council on Pharmacy and Chemistry, would be about right. The purpose of this resolution was unanimously applauded and the trustees were very promptly requested to act. One reference committee recommended that the Council on Pharmacy and Chemistry take over the work and establish a bureau with a special group of investigators and judges, to handle the new problem, much as was done in the case of medical education when the hospital problem was added. We still think this would have been better than to establish a new council, but that is a problem for the trustees to handle and we are glad to be rid of the responsibility.

We warmly commend the new council for its vigorous action in organizing, as per a news item in *The Journal of the A. M. A.*, and as busy as we are personally, we almost envy the members of the council the opportunity they will have for constructive work in the interest of scientific medicine and the health of our people.

ORIGINAL ARTICLES

RELATION OF THE LIVE STOCK SANITARY COMMISSION TO THE PUBLIC HEALTH.*

BY

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The Live Stock Sanitary Commission is a branch of state government, a part of the police power of the State entrusted with the regulation of conditions detrimental to live stock, and the control and eradication of contagious and communicable diseases among them. Heretofore, its membership has been limited to stockmen actively engaged in the live stock industry; the present commission, however, is made up of two stockmen of wide experience and one veterinarian who brings to the councils, technical and professional knowledge. The commission has the power of quarantine, regulates intrastate movements of live stock, and as occasion demands, imposes regulations additional to the Federal requirements for interstate movements. The United States Bureau of Animal Industry, a Federal bureau analogous to the United States Public Health Service, functions to prevent diseases of live stock entering the United States or spreading from one State to another, and coöperates with the Live Stock Sanitary Commission, in eradicating disease within the State when such emergency arises.

The chairman of the Live Stock Sanitary Commission is its chief executive; the department heads are: Chief tick inspector, who directs the field forces engaged in tick eradication work; chief scabies inspector, who directs the work of the force that is active in scabies eradication in parts of the State where that disease is prevalent; and the State veterinary officer, who investigates outbreaks of contagious and infectious diseases, recommends the extent and character of quarantine deemed necessary, and supervises the work of disease eradication and the disinfection of contaminated premises involved. It coöperates with the United States Bureau of Animal Industry in the eradication of tuberculosis among cattle, to the extent that is possible under the present Texas law. Through all departments, because sanitary matters are involved, it bears a relationship to the welfare of the public, and through its veterinary department, becomes an active factor in the work of public health control, inasmuch as it deals with diseases of live stock that are communciable from animal to man, and is vested with the power to control and eradicate those diseases. It supervises the activities of practicing veterinarians who are approved or accredited to do official testing and technical work within the State. Reports of these men are filed regularly with the State veterinary office, and the efficiency of this department in the past, has been due in great measure to this full coöperation. In other words, the Live Stock Sanitary Commission is analogous to the State Board of Health, the difference being that one is primarily interested in the welfare of the live stock, the other in the health of the people. One has its Federal ally in the United States Bureau of Animal Industry, the other in the United States Public Health Service. They are each interested in life; their work is collateral, because all forms of life are so intimately associated and dependent, as to preclude of satisfactory separation.

From the beginning of time, as nearly as we can correctly determine, all forms of life have been dependent, to greater or less degree, upon all other forms of life. Primitive man was dependent on the flesh of animals for food and on the skin of animals for clothing. As the animals migrated in search of their food, man of necessity followed on their heels. In the upward trend to quality supremacy, the association of man with animal life has become increasingly imperative. Where did man come from, and by what means did he survive? That is a mooted question—theologist and scientist with irreconcilable beliefs, wage war one against the other with theories which are perhaps logical, although incapable of demonstration. We have no quarrel with these—we accept as facts such as serve our purpose, although neither scientist nor theologist offers an adequate explanation. Was it possible that millions and millions of years ago a revolving mass of molten substance was thrown from some planet and launched on its spinning journey through space; and in the flight was cooled as atmospheric elements contracted and were changed to torrential downpours that continued to submerge this mass long after it was anchored by attraction to other planets, its burning force now spent? How many eons of time were necessary to adjust it to its orbit, there to revolve in harmony with solar laws?

How long before that synthesized mass emerged from the waters and the steam that hid the progress that was made? Was the ratio of land and water then the same as it is today? Did the sun's rays absorb the moisture and store it in the clouds, and did the moon subject the greater open expanses of

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water to its bidding of timely tides? Was the land that rose above the waters marked by black jagged mountains frowning on limitless, semisolid plains that oozed a yellow slime? Did the dust of dying planets cushion over all of this with fertile layers of earth, and did live things sprout from this mulch? Plant life, at first not more than vibrating specks, but growing with lightning speed to slim green strands of independent motion?

Was the plant age the first age of life, from which by evolution all other forms sprung? Or was the starting point of life some stagnant pool along these steaming early plains—a swamp patch fringed with sullen rushes and hidden by poisoned weeds, in the shadows of which at the waters edge the tree of life was growing and branching, and by that branching, concealing until this day the evidence that might place that form of life in the animal or vegetable kingdom? Was something of life washed out in the dry, and with changed environment developed above the things of the pool; and did this progression continue until the various types of present day life were represented in a primitive form.

First came the higher forms of plant life, that build up living vegetable matter from the oxygen and hydrogen of water, from the oxygen and carbon of air, and from the nitrogen and salts in the soil, deriving the energy required for this constructive work from the light rays, and on all of these sustaining itself and developing. Next came the herbivora that utilized the plant life as a source of energy to maintain itself as an animal of independent locomotion, transforming a portion of this plant substance into flesh, equine, bovine, ovine, chicken as the case might be. Then appeared the carnivora, the eaters of animal flesh, deriving therefrom the energy to ambulate, and to convert that flesh into the body substance that is true to their species, whether man, tiger, dog, or hog. Are we to believe that a sort of man, a progenitor of our kind, appeared at this time—a semi-erect forbidding creature of contorted features, hair covered and dull brained, scarcely distinguishable from the form of life below him? From soil to plant, plant to herbivora, herbivora to carnivora, until the highest point in the cycle is reached in mankind, the upward tendency progressed. Then came the retrogression as the bacteria seizing the organic matter split it into its elements, returning them to the air, the water and the soil, where the plant can again make use of them. There was no vegetable or animal without its Nemesis.

Tracing backward across the years; reaching beyond the discovered records of history; delving into the earth's strata and uncovering in the varied incrustations that millions of years of reaction have built one upon the other, incontrovertible evidence of things that have lived, thrived and functioned in a given era and then perished, but were partially preserved by the elements of nature that had triumphed over them, we cannot fail to read the lesson of advancement and decay. We learn of the scourges of humanity—of plagues, fevers, uncontrolled pestilences, stalking stealthily and unchecked, ravishing populations, until the last living thing—perchance, a typhus ridden human being, drooped its head and died.

Centuries pass, and that man of another age may the better read his lesson, the restless winds brush the sands away and man discovers carven columns rising out of desert sands. He digs and exposes the ruins of a lost civilization—palaces, temples of worship, great public baths, marvelous works of art, and evidence of a harbor that had hovered the shipping of thousands of years ago, the wreckage of a water system and a means of sewerage disposal, orderly and systematic—a tribute to a civilization that perhaps has not been equaled since. Its magnificence charms us; we marvel at its completeness! We struggle to grasp the meaning of the tragedy that was enacted there. Did the lure of gold stifle the finer instincts and overshadow the care of the public health, or did unwise rulers crash their bark upon the rocks? Did man's closest animal associate, the dog, scatter hookworm eggs, infesting man and producing in him lassitude and shiftlessness? Did the food-producing animals, now disease-worn and degenerating, spread tuberculosis, anthrax, actinomycosis and blastomycosis among the people? Did the goats with Malta fever poison the people with milk sickness? Did the undernourished, workworn horses spread glanders, and rabid dogs running wild hasten the destruction?

It is probable that of animal life the beasts were the first to die. Were the available waters permitted to seep away, and did the overflowing sewerage pour its burden of germs into these? Who first failed here, was it the men, trained in the methods of preventing and controlling animal diseases? If so, why did they fail? Was it for lack of the essential public demand for the continuance of their unhampered services permitting the withdrawal of the official support that made their work effective? Was it those who were entrusted with the more intimate problems of public health control, or were both of these trained and trusted forces, through inefficiency or lack of interest, false to their obligation? That appears incomprehensible;

they were too closely associated with the phenomena of life to escape the consecration that such association brings. We are pleased rather to believe that these two held firm until the avalanche of retrogression swept them aside and buried them beneath its crest. All this was a natural sequence—the working of nature's laws. Procrastination permitted widening of the ratio between decay and repair, until the forces of retrogression had gone beyond control. Mange and parasitism devitalized the food-animals. Pathogenic bacteria became active and disease developed among them and such diseases as were communicable to man were transmitted by contact, or in the food products from these animals. A resultant contamination of the plant life and the soil, rendered a wholesome and hygienic food supply impossible. Without adequate control of the diseases of live stock, the public health control was hopeless. When our present civilization realized this fact, intelligent coöperation became possible, causes of disease were sought and discovered, means of control and eradication were formulated—the pestilences and plagues were no longer enshrouded in mystery. The problem is an educational matter, capable of solution with increasing efficiency as we succeed in educating and enlisting the popular support of the masses.

In instances, a great sacrifice is necessary to awaken a community to its responsibility as is shown by the occurrence at Valdosta, Georgia, in the fall of 1912, when W. D. Odem, a dairy hand, in order to emphasize his disbelief in the existence of tuberculosis in cows, used for his family milk supply an animal that was suspected of having that disease. There had been no history of tuberculosis in Odem's family. His son developed tuberculosis the following year; his wife contracted it, probably from the boy and his two daughters later became victims and, in 1922, were patients in the tuberculosis hospital at Alto, Georgia. The boy is a hopeless cripple, undersized, shattered and dependent. The mother succumbed to the disease after prolonged suffering. Through her insistence, full publicity was given to the case in the hope that the horrible example might save others the suffering she had been forced to endure. Valdosta woke up. Milk and dairy ordinances were enacted. Veterinary inspectors were employed and became active in checking the health of the dairy herds, supervising the establishing of sanitary conditions and regulating the handling of milk and milk products. Modern dairies soon replaced the dangerous unsanitary places from which Valdosta had formerly received its milk supply. A modern municipal abattoir, supervised by a qualified veterinarian replaced the former places of slaughter, insuring to the citizenship, wholesome meat from animals that were free from disease. This, briefly, is a page from the records of yesterday.

We will take from the records of yesterday, still another page that will take us back to Armenia, where in 1919, a race of people were fast passing away because of the ravages of the combined forces of retrogression. The wheat fields had given way to thistles, the meat supply had vanished, sanitation was forgotten, mosquitoes swarmed and whined on every hand, spreading malaria and adding to the disorder. Children with faces as careworn as a monkey's, their bellies swollen by starvation, crawled about in search of food, cowering and cringing in the shadows like hurt animals. This was a man-made condition, a deliberate denial of proper food and environment, an inviting of unsanitary surroundings and disease, a massacre of a people by means of nature's retrogressive forces.

America assumed the care of 26,000 of the orphaned children that had survived. Shiploads of food saved them from extermination. Agriculture was reëstablished healthy live stock were introduced, and the "Children's City," at first a vast hospital, has in a few years developed into an orderly, industrious, healthful community of salvaged humanity. Medical men have reëstablished health among the people. Veterinarians and animal husbandrymen have laid the foundation that insures a perpetuation of a healthy meat and animal product supply. Modern farming methods are in operation, supervised by graduates of American agricultural colleges. The children, as their ages permit, are being made a part of this great agricultural activity. Industrial schools have been established and are offering instruction in some twenty trades. Hygiene is taught in the schools and exemplified in the homes. Order has been restored and under proper guidance the baby hands of these survivors, are fighting back to the path that will lead them to future racial sufficiency and independence. The element of time, the lack of complete isolation and the help of a sympathetic civilization, saved these people from the fate that had come to those of the cities that were buried in desert sands, generations ago.

From these salutary lessons we learn to face the future that holds in increased proportion, the menace of the ages that have passed, and resolve to meet that threat with every means that science has placed within our grasp, and with a determination that knows of no surrender. Humanity's triumphs have

been reached after the many obstacles obstructing the trail were hewn away; it was achieved when the tangled meshes of poison vines and an auxiliary of swamp-bred life had been robbed of their sting. The domination of human intellect over the earth and all its creatures is the the crowning attribute that distinguishes man above all other earthly life. The idea of life is inseparable from the idea of an environment that provides in some fashion for the maintaining of that life. Man cannot live alone, our safety is in numbers, our power and progress depend on the concentration of those numbers, and to the degree that the numbers are maintained in healthful condition and capable of all the exactions that survival may impose upon them. Concentration and increasing population, create congestion, which requires regulation and intelligent direction, without which the seeds of destruction within, will germinate and destroy the life involved. As the human population increases and further usurps the open spaces, the animal life, through congestion, becomes a menace to itself—and consequently, a threat to human life, unless the enforced condition is relieved by proper sanitary measures and control.

When environment favors but one species, that species soon dominates. Man is dominant because of brain development made possible by a soul. Man must combat and control the forms of life that are destructive to his species, and protect as well the serviceable forms of life without which he himself would perish. Man is vitally interested in and must maintain the true sweep of the cycle of all life that springs from the soil, and by assimilation and adaptability reaches its crest in the human type, then returns to the soil again. Human and veterinary medicine, progressing along collateral lines, have in recent years been drawn together by a realization that the human problem is intimately associated with the animal life, both past and present, and that certain diseases are common alike to man and beast and permit of eradication only to the degree that the animal life is regulated and controlled. The development of the microscope cleared away the clouds of theory—the intelligent study of morbid anatomy made us familiar with the postmortem appearances of the common diseases.

We have progressed perhaps all but unnoticed, one by the other, along the humble paths that led from the barber chair and the farrier forge. We have progressed independently, developing a responsibility to civilization that increases with the changing environment of a multiplying humanity. A responsibility, that even now finds us in a manner coöperating, will sooner or later yoke these two branches of medicine together, that public health control may be the better served. Perhaps our present civilization may not recede; the restless sands of time may never enfold and bury the cities of today beneath their quickening grains. Perhaps the end that is promised may find this globe of ours uninhabited, ice encrusted, black and cold, hurtling through space unguided, a solar derelict menacing other planets, and by collision smashing and shattering these in the confusion of the day that shall end the things of material sense. From a better land we may all look on and in the judgment spoken on that great day, hear of our era the words: "You have made mistakes, but you did your best with the light you had at the time."

THE VALUE OF PHYSICAL EXAMINATIONS IN INDUSTRY.*

BY

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We are still carrying on the rolls of the Chicago, Burlington and Quincy Railroad Company, a man who entered our service 72 years ago; he was born in Rhode Island in 1828, came west to see the country, and contemplated going down the Mississippi River to New Orleans, but instead took employment in 1853, with the Burlington. When this man was born, transportation was largely by water or stage, as it had been since the dawn of civilization, and man, in most of the relations of life, depended upon himself for his safety and that of his family. George Stephenson did not build his passenger locomotive, the "Rocket," until 1829. Following the development of the locomotive and the use of steam in industry came the marvelous development of our industrial life, and expansion in our social life. We are appalled at the loss of life and limb in industry, and we are sometimes charged with gross inefficiency, but when we consider that all of this change has come about within the span of life of this man now living, and who shared in this great development, we marvel that so much has been accomplished; and realizing that so much has been accomplished, should we not take heart for the future?

Following the steam engine came the electric motor, the gas engine, and our modern system of transportation, covering the movements of millions of people; and yet, trans-

*Read before the Section on State Medicine and Public Hygiene, State Medical Association of Texas, Austin, May 5, 1925.

portation is only one part of industry which requires the use of machinery, and the interwoven responsibilities of individuals for safe and economical operations. When we drove a horse we were usually able to control it and thus guard our own safety, but with modern means of transportation we are compelled to trust to others.

Who are the people a railway passenger depends upon for his safe transportation? We first think of the engineer—and he is a very important factor—but there are many others that he and we must depend upon: those who build the locomotive and cars and the inspectors who declare them fit to run, the trainmen, the men who prepare the roadbed and lay the rails; those who inspect and keep the track and bridges in good condition; those who control the switches; those who build and maintain the signals; the telegraph and telephone operators who operate signals and handle train orders; the dispatcher who directs the movements of trains—all of these, with unnumbered others, are to a greater or less extent responsible for the safety of passengers, employees and property, and each one must do his part. The same factors enter into the operation of electric street cars and motor cabs; even in operating an automobile, we are largely depending for our safety and those with us, upon the sanity and physical condition of other motor drivers.

Modern railroad operation, particularly with density of traffic and population, requires the use of signals both of form and color; necessarily then, those having to do with the operation of trains and signals must have normal color perception in addition to good vision and hearing. Protection of the lives of passengers and of other employees, as well as that of the employee himself, obviously requires that he be organically sound and have no physical defects that will cause his to fail in his work at a critical moment. It is but a step from the operation of a train to the operation of any machinery, or the construction of roadways, bridges, buildings, etc. In short, whenever man has to do with work involving others, he must be free from defects endangering others as well as himself. When the blacksmith, the carpenter, or other artisan produced alone, he had but himself to consider; today, practically all of his work is but part of a group production, and thus he and his fellow workers are no longer independent industrial units. All of this applies not only to those seeking employment but to those regularly employed; their fitness to continue assigned duties prompts physical reëxaminations at stated intervals or when some indications of failing powers are noted.

Of interest to the employee, the employer and to society at large, is the economic aspect; all are benefitted by an individual with a serious defect being diverted from engaging in employment in which there can be no promotion or prospect of permanent employment. As an illustration, a man seeks employment as a locomotive fireman; he meets the mental requirements and passes a satisfactory physical examination, with normal hearing and color perception, but for distance vision it is found that he is able to read with a two plus lens, and we thus learn that he will prematurely have such deficiency in vision that he could not long be continued as a locomotive engineer. He is therefore denied employment in engine service and can utilize the years which would have been practically wasted as a fireman, in perfecting himself in other work. The requirements for various lines of work vary, and the standards necessarily vary both in occupations and localities. While we may feel there is an obligation to society to give employment to every individual capable of rendering service for the wages paid, yet there is a higher duty on the part of an employer to avoid, as far as possible, taking any one into his service who will jeopardize the life or health of others, including those in his employ. Physical examination of those seeking employment frequently reveals conditions that, if left uncared for, would prove serious, and the individual is benefitted by learning of his condition and of the remedy that should be pursued. The broadening of lines of employment open to women, particularly in large offices, stores, factories, etc., makes physical examination of them when applying for employment, most desirable. The applicant who cannot physically stand the strain, or who may possibly transmit disease to others, should not be employed; the permanent force appreciates their being shielded from the effects of the impaired health of others. The handling and preparation of food supplies should only be allowed by those who upon being employed for such work and by subsequent examinations regularly made, show they are free from disease. The examining staff is, when reëxaminations are periodically made, able to advise of conditions requiring attention by the employee's family physician, or a specialist, and thus is of especial value to the employee.

Railroads are the largest employers of labor, and were among the first to realize the necessity of physical examinations and of maintaining physical standards for a considerable number of their employees. With the increase in business and in the number of employees, the advantages of physical examinations of all except casual labor, became apparent. The irregular worker with an un-

known physical defect is a costly employee; foremen and others employing labor can only see with the eye and may overlook what would be easily ascertained by a physician. The railroad wage is largely determined by governmental agencies; those employed in similar work receive similar pay; those who, because of their physical condition, cannot produce as much as the average employee in similar work, should not expect the same wage, but as we must either pay an equal wage for less work, or employ a normal man, we find the effort to assist employees to maintain or regain normal health is good economy.

Incidental, and of equal importance, is the question of public health, sanitation, etc. Through our medical staff we are in constant touch with the health of our sixty thousand employees on ten thousand miles of line traversing eleven states. An outbreak of disease in a given locality is reported to us at once and we earnestly coöperate with the public health authorities. Drinking water is analyzed and all that may affect the health of the public and our employees is given careful supervision.

This is not the time to enter into details of standards for given occupations, and a layman should not presume to suggest to physicians how they should make examinations. An experience of 40 years brings a strengthening conviction that, if properly conducted, and with due regard for the feelings of the individual, physical examinations and reëxaminations are of inestimable value both to the employee and to the employer.

A healthy body conduces toward a healthy mind, and both contribute to the welfare and happiness of the world.

ABSTRACT OF DISCUSSION.

Dr. A. Philo Howard, Houston: The young and inexperienced should and do learn from their elders. And so the newer railroads have observed and are being benefitted by the experience of older railroads. The Burlington people, especially, have adopted a plan by which their employees have received a benefit, as well as the public. They believe in the enforcement of their plan and policy, believing that what is good for a few will prove still better for many.

The policy of the company requiring periodical physical examinations for all employees, renders to the employee a personal service. But the company also receives a direct benefit, knowing the performance of a certain duty by the employee who is physically fit and mentally sound will be as it shou'd be. The company's financial gain depends upon the faithful discharge of the employees' duties. At first, complaint was general, many not realizing the importance of these examinations or the benefit they would receive, but they are becoming less. Many food handlers complain of the law requiring physical examinations, but as they come to understand why the law was enacted, the law is gaining favor.

Some doctors give health certificates without due examination. It is unjust and unfair and causes some to be laboring under false security. The examiner should be careful and protect the public. A syphilitic may have a brain lesion, a dispatcher, for example. His brain failing to function properly at a critical time, two trains may run together and scores of deaths result. We all see the dire necessity of such a program; the law should be upheld and the public should be taught the meaning of it all.

Dr. A. H. Flickwir, Houston: I appreciate very much Mr. Redfern's paper, and feel that by having in their service physically and mentally sound employees, they are doing a wonderful work, and one that is a wonderful protection to the public. And this is a service that the public deserves and appreciates.

In the city of Houston, ambulance and fire truck drivers are given a physical examination. Their eyes are especially examined to see if they are color blind. All firemen and policemen are given physical examinations and work under civil service rules.

Mr. Redfern's paper brought out some very important points on industrial hygiene.

Prof. W. A. Buice, Baylor University, Waco: A bacteriological survey of the hands and fingers of waiters and waitresses in the eating places of Waco, is at present being made by a graduate student in public health at Baylor University. Up to the present stage of the investigation, approximately 15 per cent of the hands thus tested bacteriologically have shown the presence of the colon bacillus. This illustrates the potentiality of waiters and waitresses to become disseminators of typhoid, dysentery, and other infections. It also illustrates the importance of a bacteriological examination of the feces of such food handlers, to determine whether they are typhoid carriers.

Dr. A. W. Acheson, Denison: I make it a practice to examine the hands of food handlers for sores, itch, etc., but have never thought of making a microscopic examination for colon bacilli on the fingers. However, I will do so in the future, and also expect to look for tuberculosis more closely in the examination of food handlers. I am entirely convinced that I should make a very thorough examination and protect the public.

Mr. Redfern (closing): I appreciate the discussion which has taken place, following the reading of my paper. Dr. Dowling said he was interested in an insurance company, and therefore he was glad to note the span of life was increasing, as it meant people would pay premiums for a longer period of time. We have in our Relief Department of the Burlington quite a little insurance organization. We have about 33,000 members who are carrying death benefits totaling some $27,000,000. Death and disability benefits are payable both on account of sickness and injury. Of course, we who are working in one department think our department is largely responsible for the success of the corporation, but the success of the Burlington is not the result of one department—it is the sum total of what all of the officers and other employees do. So far as my own particular work is concerned, the policy of the company is that it pays to be humane.

Dr. Howard spoke of the danger of a man like a train dispatcher who was suffering from syphilis being allowed to continue at work. We discovered some time ago that one of our dispatchers had contracted syphilis. He was off duty a number of months, undergoing treatment, and his attending physician reported to us that he had been "cured"—whatever that might mean—but in view of his past history, including mental disturbances, and his present condition, the management did not feel

justified in allowing him to resume work as a train dispatcher. An unsuccessful endeavor was made to find other employment for him in our service, but there appeared to be no other work that he was capable of doing, and so we put him on our pension roll.

Some comment was made as to employees objecting to re-examinations and as to whether there were objections against examination of those coming into our service. We find little or no objection. These examinations have been made by our physicians for the past 35 years; our employees are all educated to the idea, and in general they approve of it, as they consider it a measure of self-protection. Those who are handling food supplies are re-examined at least every three months. We are fortunate on the Burlington, in having in our Commissary Department a considerable number of colored employees who have been with us for many years. Those men appreciate very much the value of our physical examinations, and to protect themselves, if not the company, they would communicate to the proper persons information in regard to a fellow employee who was suffering from disease.

Some comment was also made in regard to people being denied employment because they did not attain certain physical standards, and the question was raised as to what might become of such. There are various lines of employment that can be followed by those who have physical defects, but the requirements of railroad service are such that we should have employees of a high physical standard. Moreover, with a railroad like the Burlington, that employs 50,000 or more persons, we naturally have a very considerable number of our own employees who have become incapacitated from one cause or another. Through our Relief and Pension Departments we are able to assist our own incapacitated employees from becoming a charge upon the public, and having done this, we should not be expected to assume, in addition, the financial burden of taking care of other incapacitated individuals.

TRYPARSAMIDE IN NEUROSYPHILIS.*

BY

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Tryparsamide is a pentavalent arsenical compound, the sodium salt of N-phenylglycinamide-P-arsonic acid. Brown and Pearce studied its biological effect on animals and determined the different features of the actions of the drug.

During the past two or three years its value in neurosyphilis has been under investigation in the larger clinics throughout the country. Moore, Robinson, Solomon, Lorenz, and others, have reported their results in the treatment of large numbers of cases.[1] It has also been used in other forms of syphilis and it has been definitely determined that it is of no value except in syphilis of the nervous system. Primary syphilis is not influenced and the secondaries have become even worse during the treatment with this drug. There still exists a considerable difference of opinion among the most experienced observers as to its justification in neurosyphilis.

The advantages of tryparsamide over the other arsenical preparations are its ease of administration, and the freedom from the reactions seen with other drugs. There occurred no reactions with the cases reported here. In fact, some of the patients stated that they actually felt better for a few hours after each injection. Some mild reactions such as headache, dizziness and nausea have been reported but they are certainly rare.

The only disadvantage of tryparsamide is its tendency to produce amblyopia. Four of our cases complained of blurred vision but in only one was it of any importance. In Moore's series of 241 patients, 10.2 per cent developed subjective visual complaints; 5.5 per cent objective evidence of visual damage, and 2.8 per cent of his cases had noteworthy permanent visual injury.

In March, 1924, 500 grams of the drug was obtained by Dr. M. L. Graves from the Rockefeller Institute for Medical Research, for use in the treatment of neurosyphilis in the John Sealy Hospital. Fourteen patients have received sufficient treatment that conclusions may be drawn. Of these, three were general paretics, four were cases of tabes dorsalis, and seven of meningovascular syphilis. The largest number of injections given to one patient was 32, and the smallest number in the cases reported was two, an average of 14 injections being given each patient.

All the patients were given a careful fundus examination, and later in the series, the visual fields were charted before treatment was begun. The drug was given intravenously at intervals of one week, in a dosage of 3 gms. dissolved in 10 cc. of sterile distilled water. Some doses were less than 3 gms., but none larger than that amount. The first few cases treated received mercury salicylate between the injections of tryparsamide. It was not given in courses, but was continued at weekly intervals as long as the patient could be kept under observation, one of the patients receiving 32 injections without an interval.

Spinal fluid examination was made every few weeks during treatment, where possible.

GENERAL PARESIS.

Of the three cases of general paresis treated, two were advanced and one early paresis. Two had not received previous treatment. Both of these showed distinct improvement and were able to return to work. The other case had received intensive antiluetic treatment over a period of several years. He showed improvement at first, was able to do some work, and was fairly clear mentally;

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*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 7, 1925.

1. Moore, Joseph Earle; Robinson, Harry M., and Lyman, Richard S.: "The Results in Tryparsamide Therapy in Syphilis," Jour. A. M. A., Vol. lxxxiii, No. 12, September 20, 1924.

but upon continuation of treatment, after having received 18 injections of tryparsamide, he had a series of convulsions lasting over a period of 24 hours. The drug was continued, and except for a slight aphasic disturbance, his condition is about the same as before beginning the last course of treatment.

The early case of paresis is reported in detail:

CASE REPORT.

Case No. 1.—R. B. S. colored, male, age 31, a pharmacist, was admitted to the hospital October 14, 1924. The patient presented himself for a blood test, with a history of a chancre eight years previously. For the past year he had lacked initiative and was mentally sluggish, and of late he had experienced difficulty in speech and made frequent mistakes in copying directions on prescriptions. This became so pronounced that he had to give up his work. He was nervous and neglectful of his personal appearance. Examination showed a fine tremor of the tongue and facial muscles; his speech was characteristic—explosive, and with a reduplication and elision of words. He was unable to add or multiply simple problems although a well educated negro. Questions about his surroundings were answered intelligently. His pupils and gait were normal, but the patellar and Achilles reflexes were absent. The Romberg was positive, sensation normal, fundi normal and the blood Wassermann negative. His spinal fluid showed: 35 lymphocytes; globulin and albumen, 2 plus; Wassermann, 4 plus (acetone insoluble and cholesterinized antigens), and Lange's Gold curve 5555543211.

The patient was put on tryparsamide. After the second injection he complained of blurred vision which lasted only two days. He had no trouble following any of the subsequent injections. Tryparsamide was given at weekly intervals and mercury salicylate grains 1 was given between the injections of tryparsamide. In all, 18 injections of tryparsamide and 8 of mercury salicylate were given. After four injections he showed distinct improvement in mentality and speech, and gained five pounds in weight. His improvement has continued and at present he is at work. The last treatment was given February 27, 1925. The disease is apparently arrested.

TABES DORSALIS.

Four cases of tabes were treated. Three were improved and one became worse after treatment was started. Following the second injection this patient developed blurred vision which persisted until he died several months later. The drug was discontinued upon the first appearance of this symptom and neoarsphenamine was given. However, he continued to grow worse. This was a very advanced case and practically bedfast upon admission, and it is doubtful if he could have lived longer had the drug not been used. The other patients showed marked improvement, especially in regard to parasthesias and shooting pains.

CASE REPORT.

Case No. 2.—B. S., was a male, white, farmer, aged 53. For several years he had experienced lightning pains in both legs, and vomiting attacks. He had been able to work except at periods of about a week at a time, when shooting pains and gastric disturbances became so marked that he had to go to bed. These attacks occurred at intervals of three or four weeks. There was a history of chancre 23 years before, with two years' mercurial medication. For the past two years he had been receiving antiluetic treatment irregularly, and after treatment, his symptoms would be improved. Examination showed absent patellar reflexes, positive Romberg's sign and Argyl Robertson pupils. A previously strong positive spinal fluid was now negative, though he continued to have the attacks of pain and vomiting. He received eight injections of tryparsamide at weekly intervals. At the present time, three months after the last dose, the patient is feeling well, has not had another attack, and he has gained several pounds in weight.

MENINGOVASCULAR SYPHILIS.

Of the seven cases of meningovascular syphilis, five had received a great deal of previous treatment. Four of these were slightly improved. One of these cases had attacks of amnesia and failing memory, lack of concentration, and petit mal attacks. After treatment, his memory was not improved but the petit mal attacks were less frequent and he was able to carry on his occupation.

CASE REPORTS.

Case No. 3, was one of advanced lateral sclerosis with spastic arms and legs. He was unable to walk or feed himself, but after treatment he could walk a little and could feed himself with difficulty. He did not improve beyond this point.

Case No. 4, presented myoclonic contractions of the left arm and left side of the face, upon any passive or active movement of the arm, and occasional general convulsions. These became less frequent and the contraction of the arm and face diminished.

Case No. 5, was one of advanced lateral sclerosis of several years' duration. Recently, there developed a radiculitis with severe pain. This symptom was improved.

Case No. 6, a slowly progressing anterior poliomyelitis, was not improved, but the disease has not progressed since inauguration of the treatment.

Case No. 7, was a peripheral type of facial paralysis. Treatment was started about two months after the onset of the paralysis, and now, after 32 injections of tryparsamide, there remains only a little weakness on the affected side.

Case No. 8, showed such unusual results it is well to report it in detail. R. G. was a male negro laborer, 37 years of age, first seen March 9, 1925. He complained of weakness of the knees and legs. For the past six months he had noticed increasing difficulty in walking, and a slight disturbance in bladder control. Examination revealed spasticity in both legs, with bilateral exaggerated knee and ankle jerks, ankle clonus, and Babinski's sign. A cane was necessary in walking and the gait was spastic, slow and very difficult. The blood Wassermann was 1 plus, acetone insoluble antigen; and 3 plus, cholesterinized antigen. The spinal fluid showed: 10 lymphocytes; protein 3 plus; Wassermann 4 plus, both antigens, and Lange's gold: 455522100. He showed improvement after the first injection, and this has continued until he now walks with little evidence of spasticity. He no longer requires a cane. In fact, his gait is almost normal. His partial incontinence is also improved.

SEROLOGICAL EFFECTS.

Of the fourteen cases reported, some were serologically negative when treatment was started, and on some a second spinal fluid examination was not obtainable; so that only nine cases are available for study.

The spinal fluid Wassermann was reduced from 4 plus to negative in only one case, and from 4 plus to plus minus in one case. There was a substantial reduction in five other cases, while in two cases the Wassermann was unchanged. The cell count of the spinal fluid was reduced in seven cases, in two of which counts of 68 were reduced to 6 in one, and to 3 in the other; in one it was unchanged, and in one the cells were increased.

The protein was reduced in six, unchanged in two, and increased in one case. The Lange's gold curve was reduced in five cases and increased in one. In three of the nine cases the Lange was not done a second time. The pleocytosis and Lange's gold test are the first affected by tryparsamide, while the Wassermann and protein are the last to show a change. However, with continued treatment, we believe the Wassermann of the spinal fluid can be made negative. The one case in which the Wassermann was reduced from 4 plus to negative received 32 injections.

SUMMARY.

From the cases here reported we conclude that in tryparsamide we have a remedy for syphilis of the central nervous system, which is as efficacious as other methods of treatment, and in some instances more so. It has the advantage of ease of administration, freedom from reactions, and is applicable to ambulatory patients, not requiring hospitalization.

The majority of our cases were well advanced, showing degenerative changes which had persisted over a period of several years, and it is futile to expect repair in such cases, but even these showed improvement in general health and gain in weight. The early cases treated showed more rapid improvement than we have obtained with other drugs.

The tendency to produce visual injury can be prevented, we believe, by proper care. The drug should be discontinued upon the first complaint of visual disturbance, and after this has disappeared, subsequent injections should be reduced in amount. Frequent fundus and visual field examinations are also advisable.

ABSTRACT OF DISCUSSION.

Dr. Lee Rice, San Antonio: I have had an experience of eight months with the use of tryparsamide and my results suggest to me, that it is a very useful drug in the treatment of cerebrospinal syphilis and is likewise of no value in the other types of lues. I had one case of meningo-vascular lues that showed no improvement after long continued administration of the drug and I have not seen it relieve the lightning pains so common in tabes dorsalis. The Rockefeller Institute recommends that tryarsamide not be used in those cases with a beginning optic atrophy. I have not dared to go against the advice of these authorities even though other men say it will do no harm. The simplicity of the administration of the drug is a great boon to the general practitioner who may not be equipped for intraspinal work. However, I believe it wise to note that tryparsamide has not taken the place of the intraspinal treatment of syphilis. It is rather an adjunct to an established plan.

Dr. E. D. Crutchfield, Galveston: Tryparsamide has an important place in the treatment of neurosyphilis; in certain cases, its effect is marvelous. It should not supplant the arsenicals, and I am of the opinion that it should only be used after thorough treatment with salvarsan. In selected cases, however, as Dr. Harris has shown, it has an important place. We feel that tryparsamide should not be used without careful examination of the eyes, but if this is carefully carried out, no apprehension may be felt in the use of the drug.

Dr. Harris (closing): Most authorities state that tryparsamide can be given even in the face of ocular disturbances without any fear of making the condition worse. I saw one case of tabes that had had the lightning pains for a long while. He had been given the usual accepted treatment with no improvement of these pains. After the administration of tryparsamide, the pains ceased. Tryparsamide recommends itself primarily on its simplicity of administration and lack of reactions.

SYNERGISTIC ANESTHESIA IN OBSTETRICS.*

BY

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Since time immemorial, efforts have been made to relieve the pain of labor with methods almost innumerable, by the topical application of drugs, the inhalation of fumes, the taking of herbs and various concoctions, and by many forms of hypnotism or mesmerism.

On the advent of chloroform and ether as anesthetics, they were quickly used in the obstetric field, and for many years they, especially chloroform, were used to allay the pain of the second stage of labor. The "Twilight Sleep," or morphin-scopolamin semi-narcosis as introduced by Steinbuchel in 1902, was heralded as the ideal analgesic in labor. This was intended to take care of the pains in the first, as well as the second stage of labor. Many of you have given M. H. C. tablets and felt that you were rendering a great service until you learned of the dangers of the method. This form of anesthesia is

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

used today in a comparatively few special hospitals, as in the clinic of Kronig and Gauz in Freiberg, and in a few hospitals and by a few outside, in this country. These methods all had their day, their good and bad effects, some requiring special hospital technique, and none appealed to the majority of physicians, but this evolution of effort has brought nearly all obstetricians together in a common tendency to prove that the usual travail of labor is not necessary in a large percentage of cases, and that they should not sit idly by and console themselves with the old adages that the pain of labor is normal, that is necessary for maternal love, etc.

However, the new method which I wish to describe is not proclaimed as a painless childbirth panacea, but from the experiences of the original investigators, corrobated by many followers, I believe it to be the safest for the mother and child, the simplest in technique, efficient in the greatest percentage of cases, and very inexpensive, the retail price of the drugs used in an average case not exceeding $1.50.

Rectal anesthesia was first used successfully by Gwathney in 1913, and his results were so satisfactory that when he required a major surgical operation himself, rectal anesthesia was used with success. In 1913, with other anesthetists of New York City, in connection with the staff heads of the New York Lying-In Hospital, he decided to try to produce analgesia by using a small amount of drugs administered through different portals and calling the procedure "synergistic anesthesia." The word "synergism" meaning using drugs which aid each other in their physiological effect. To illustrate: Gwathney determined that, when 6 per cent of ether in normal saline solution was injected into the internal saphenous vein of the albino rat, the average anesthetic dose was 744 mg. per kg. of body weight, but that the minimum lethal dose was over 2½ times 744 or 1892 mg. per kg. of body weight, indicating a wide margin of safety. When a 6 per cent solution of magnesium sulphate was given, using the same technic, the average anesthetic dose was 185 mg. per kg. of body weight and the average minimum lethal dose was 190 mg. per kg. of body weight, showing a margin so narrow that it would be unsafe to use magnesium sulphate alone as a general anesthetic. If, however, a 6 per cent ether and 6 per cent magnesium sulphate solution in normal saline is given, the average anesthetic dose is 170.8 mg. per kg. of body weight, and the average minimum lethal dose in 344.4 mg. per kg. of body weight, that is, the lethal dose is over twice the amount of the anesthetic dose, giving a wide margin of safety.

If this combined anesthetic dose, 170.8 mg. per kg. of body weight (ether 6 per cent, $MgSO^4$ 6 per cent), is analyzed, we get the following result: 85.4 mg. of ether equals 11.48 per cent of the anesthetic dose of ether alone (744 mg. per kg.); 85.4 mg. $MgSO^4$ equals 46.16 per cent of the anesthetic dose of $MgSO^4$ alone (185 mg. per kg.). The total is 57.64 per cent of the combined calculated anesthetic dose (296.32 mg.) Therapeutically 11.48 plus 46.16 equal 100 instead of 57.64 per cent (definite synergism).

The toxicity of ether and $MgSO^4$ in combination is a simple summation of the toxicities of the two compounds. A number of combinations were used until the final mixtures consisted of two portions: one given hypodermatically and the other per rectum, the hypodermatic being $MgSO^4$ alone, or with morphin, or with novocain, or with both morphin and novocain added and the rectal portion being a mixture of hydrobromide of quinine, alcohol, ether, and olive oil.

The published technique of Gwathney, since the first 100 cases, is as follows: When the cervix is two or three fingers dilated and the pains are from four to five minutes apart, and lasting from 30 to 40 seconds, give an intramuscular injection of morphin 1/6 grain in 2 cc. of a 50 per cent $MgSO^4$ solution with 2½ per cent of novocain. If the effect of the hypodermic is not markedly sedative in 20 minutes, place the patient on her left side and with a gloved finger in the rectum, direct the end of the catheter filled with olive oil beyond the fetal head, or buttocks, and give as a retention enema the following: quinine hydrobromide, gr. 20; alcohol, dr. 3; ether, oz. 2½; olive oil qs. ad., oz. 4. Additionally, if necessary, from 2 to 4 hypodermic injections of 2 cc. of 50 per cent $MgSO^4$ with 2½ per cent of novocain without morphin, may be given. The rectal portion has been repeated as many as four times, leaving out quinine, and may be repeated within four hours after the first installation, if necessary.

At St. Paul's Sanitarium, in Dallas, we have used this method of analgesia in over 200 cases and are so satisfied with the various phases of its administration and results that at the present time we use it almost routinely, and our internes and nurses have become so familiar with the technique that all that is necessary for the visiting physician to do is to ask that the synergistic anesthesia be used. A patient, upon entering the hospital is routinely given a cleans-

ing enema, unless otherwise ordered; or, if the enema is contraindicated, the rectal portion may be given just the same. We depend on symptoms more for the induction of the analgesia than the stage of labor, except when labor is too far advanced, which is about the only contraindication to using the procedure. In a primipara, when the pains are moderately severe, and if labor is advancing well, our patient is taken to a room near the delivery room, which may be darkened and quietened easily, and a hypodermic injection of 2 cc. $MgSO^4$ with 1/8 to 1/6 grain of morphin is given. In from 15 minutes to one hour afterwards, depending upon the effects of the hypodermic (the less effective the hypodermic the sooner the rectal portion is given), the patient is turned on the left side and the anus having been thoroughly anointed with vaseline, a catheter filled with olive oil is inserted 5 or 6 inches into the rectum and by gravity or a syringe, preferably the latter, the solution is slowly introduced, the rapidity depending on the severity of the pains and the tendency to expel the enema. The solution is injected between pains, stopping for the pains and having the patient breathe rapidly through the mouth to prevent expulsion. A period of from 5 to 10 minutes is usually required. The catheter is then withdrawn and the buttocks are held firmly together with a towel, applying more vaseline to the anus if there is any burning and the patient is required to use mouth breathing for a few pains when she will begin to show signs of sleepfulness and voluntary efforts at straining are lessened. The patient is then left alone and will usually sleep from two to four hours, with varying amounts of demonstration during the pains, many times only a slight movement of the limbs, or reddening of the face, or a grunting sound. There should be a fairly close watch kept lest precipitate labor occur. As the head passes over the perineum a few inhalations of gas, chloroform or ether may be given.

In multipara, we prepare to give the hypodermic and rectal portions close together, for many times labor is rapid and often analgesia is well established within five minutes after it is given.

A number of my colleagues have used this method in the home with as good or better results than have been obtained in the hospital, and one of the primal objects in the development of this analgesia was to make it simple in technique so that it could be handled in the home as well as in the hospital.

I wish to quote the analgesic chart of the New York Lying-In Hospital for November, 1924, which includes 200 cases:

CHART I.

Effect of first hypodermic:	Sedative	123	....
	Unchanged	.....	53
	Exciting	.....	3
Instillation:	Retained	194	....
	Irritated	.....	1
	Expelled	.....	13
Effect of enema and hypo:	Sedative	177	....
	Unchanged	.....	17
	Exciting	.....	6
Contractions of uterus:	Not affected	125	....
	Increased	37	....
	Decreased	.....	32
Sensation of pain:	Decreased	168	....
	Not affected	.....	24
	Increased	.....	6
Delivery:	Without forceps	141	....
	With forceps	.....	33
Do occipitoposterior positions rotate normally:	Yes	22	....
	No	.....	7
Condition of baby:	Crying	158	....
	Apneic	.....	24
	Asphyxia	.....	4

CONCLUSIONS.

I can heartily conclude with Gwathney that:

1. The method is safe.
2. Pain is relieved in some measure in over 90 per cent of all cases.
3. Labor is not delayed.
4. Occipitoposterior positions rotate in about the same proportion as without medication.
5. The baby is usually born crying.
6. Delivery with forceps is decreased.
7. The postpartum contraction of the uterus is good.

SCOPOLAMIN-APOMORPHIA AMNESIA IN OBSTETRICS.*

BY

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Each year registers a greater interest in the means and methods of relieving the pain of the woman in travail. Two factors have principally stimulated this activity: one, the growing demand on the part of women—the result of education—for the amelioration and relief of pain, which can be so well afforded by modern surgical practice; the other, a realization on the part of the rank and file of the profession that it has been remiss in its duty and has neglected to give every expectant mother the benefit of one or more of the many methods of anesthesia, analgesia and amnesia. Among the agents presently employed can be listed: chloral and bromides, morphin, morphin-scopolamin, and

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its many modifications of drugs and doses, scopolamin alone, scopolamin and chloroform (with or without apomorphia), the synergistic method of Gwathney, and trans-sacral, ether, chloroform, and nitrous-oxide anesthesia.

This confusing array of anesthetics of necessity has its champions and critics, the respective opinions being based, in most cases, on the experience or lack of experience of the accoucher with the methods recommended.

The use of scopolamin in obstetrics is not new; its advocates are lamentably few; its antagonists are many. In our obstetrical service at the Charity Hospital the usual anesthetics have been employed, but my experience with this drug began some eighteen months ago and resulted from an attempt on my part to institute in our service some method of painless delivery which would be safe and efficient, and could be administered by an interne who is charged with the conduct of normal cases.

I deemed the routine use of morphin-scopolamin as inadvisable under existing conditions, so I substituted the method suggested and described by Dr. R. E. House and which he demonstrated to me, as presenting the best means of fulfilling my purpose. The technique employed was as follows:

The patient showing the positive signs of labor with two fingers or more dilation is surgically prepared, including catheterization. She is placed in a quiet room, the eyes protected from the light by a gauze dressing held in place by adhesive strips and the ears closed with cotton pledgets. The usual abdominal and pelvic examination is made, special attention being directed to the rate and quality of the fetal heart sound. Scopolamin, grains 1/100, and apomorphin, grains 1/50, are given hypodermatically. The second injection of scopolamin alone, grain 1/200, is given twenty minutes later, if the contractions are frequent and strong, and thirty or forty minutes later if lessened in frequency or intensity. Following the second injection the "memory test" is applied and twenty minutes later the administration of chloroform is begun and given to the degree of unconsciousness, the patient being instructed to count slowly in the meantime. When unable to continue the count, we have reached the desired stage, and the anesthetic is stopped, the patient being allowed to recover. The transition is then from analgesia to hypalgesia, and finally, amnesia.

The "memory test" is again applied and the degree of amnesia determined. If unsatisfactory, the chloroform is repeated in ten, twenty or thirty minutes, depending on the result obtained, and finally another injection of scopolamin grains 1/200, can be given if needed. If after following the above outline the desired amnesia is not obtained, no further medication is attempted for fear of overstepping the experimental limits of safety set by Dr. House.

You will note that I have used scopolamin, grains 1/100, instead of 1/130, as suggested by Dr. House. My first few cases were conducted with 1/130, but later I was unable to get the tablets of this dosage from the same source so I continued with grain 1/100, noting little if any appreciable difference. A patient subjected to this procedure is therefore placed in a condition of amnesia.

ADMINISTRATION AND ACTION.

Attention to detail is one of the most important factors in securing the proper results with this method. Fresh hypodermic tablets must be used in each case, care being taken to remove the first tablet or two so as to eliminate failure from disintegration. Again, the tablets are dissolved in distilled water, as ordinary water solutions suffer rapid decomposition. When dealing in hundredths of a grain, one cannot be too careful and loss of the solution should be avoided.

The administration should always be preceded by an appraisal of the patient's mental capacity. The educated, intelligent or nervous types may require a higher dosage. All patients should be individualized as much as possible, but the technique described is applicable in most cases. Scopolamin acts by depressing the cerebrum, giving a sensation of drowsiness and sleepiness, the sleep may be preceded by a period of giddiness or excitement, uncertain movements and difficult or indistinct speech. It is said to act on the involuntary uterine muscle, causing softening and relaxation of the cervix. The duration of its effect varies from five to eight hours and it is usually excreted in the urine at the end of twelve hours.

Soon after the initial injection of scopolamin, the patient becomes more quiet. This has been noted in some cases as soon as three to five minutes afterwards. The face may become flushed and the patient drowsy. Thirst is one of the first symptoms of effect, and a request for water usually precedes the second dose. The apomorphia is given for its synergistic effect. In the small doses used, it does not act as an emetic, but may or may not produce nausea in varying degrees, and occasionally, some vomiting. An amount of relaxation is produced as a result and this is of some benefit. As we are dealing with a mydriatic, the eyes are protected from the light by using a gauze dressing held in place

by adhesive strips, the latter making it more difficult of removal by the patient. The sense of hearing remains acute for some time and additional quiet is obtained by placing cotton pledgets in the auditory canals.

Every effort should be made to keep the environment as quiet as possible. The patient relaxes, and hardly shows any restlessness except at the beginning of each pain. Little positive effect is noted until the second injection. Then a variety of very interesting reactions are observed. Some are drowsy and restful, in others there is a varying degree of confusion, while still others attempt to sit up and appear to be fighting off a compelling sleep. In most cases, the patient cooperates when admonished in a low tone to remain quiet; any attempts at restraint in harsh tones or by forcible efforts appear to irritate her, and should be avoided.

The "memory test" is now applied by showing the subject several objects, preferably three or four. Chloroform is then administered, drop by drop, and the patient instructed to count slowly to 100. This count centralizes her attention, causes more frequent respiration, and furnishes us with an index of the degree of unconsciousness. When the count ceases or becomes irrational after frequent corrections, the anesthetic is stopped, as its action is cumulative and a sufficient amount has been given to insure complete relaxation and unconsciousness. More than one-half ounce is seldom required to achieve the desired cerebral depression.

After the patient has reacted, the "memory test" is again applied and the patient is asked to name the objects previously shown her, and in the order given. The answers obtained determine the actual amnesic state. If satisfactory, memory has been abolished or possibly one of the objects may be named, usually the last one shown. Patients frequently change their positions, move or remain quiet between pains, arouse with the beginning of a pain and seem to make more than ordinary use of them. Some may show external evidence of pain, but in all cases nothing to compare with that experienced by the woman who is unassisted.

The amnesic state should continue for several hours, the "memory test" being used from time to time so as to keep informed regarding their mental condition. Those cases that react and are restless or irritable are in all probability insufficiently depressed and the chloroform should be repeated; again, they may be suffering from overdosage. In any event, small doses of chloroform should be used as a control. A supplemental injection of scopolamin, grain 1/200, can be given along with the chloroform, should the patient's condition indicate the need for more medication.

Provision has been made to carry the patient through the first stage and a greater part of the second stage, if not through the actual delivery. In my experience, the effects begin to wear off by this time, the pains are stronger and more frequent and I have made it a rule to complete the second stage with the assistance of chloroform. Dr. House advises the hypodermic injection of strychnine sulphate, grains 1/80, approximately from five to ten minutes before delivery, to offset any possible respiratory depression. In my first ten cases I did not follow his suggestion, and noting no untoward results continued to eliminate this feature. To date I have not found any actual need for its use. I may be courting disaster, but my experiences to date are very satisfactory.

The moment delivery is effected, the baby is placed in a warm blanket, its nose and throat cleared, and if the cord is short or interferes with the removal of the baby from the soiled field, it is immediately clamped and severed. The postpartal period of both is uneventful. The usual routine is followed, there being no reason for any change in this respect.

The mother's condition is unusually good, she is rested and deeply grateful for the protection given her. She seldom has any recollection of what occurred following the chloroform if the method has succeeded.

I have used the House method in 66 cases. Fifty of this number form the basis of this report; the remainder were early cases, the technique was variable and uncertain and for this reason they are eliminated. Of this number 42 were primipara and 24 multipara. Most of the hospital cases in multipara were ambulance cases with rapid spontaneous deliveries, this accounting for the larger number of primipara. The method failed in three cases, one from insufficient dosage, one from overdosage, and the other was an undiagnosed occipito-posterior position with a large caput, in the second stage, delivered with forceps.

Pituitrin was used in three cases for prolonged second stage, the hemorrhage being normal in every case. In one case, a four-pound baby was born with irregular respiration, but of normal color. It soon revived unassisted. In another, a premature at seven months died a few hours after delivery; an autopsy was not obtained. A known stillborn, definitely luetic, completes this series. The remainder of the babies cried lustily and

their color was good and gave no cause for alarm.

My results, when begun in the second stage were unsatisfactory. The patient was usually tired, the pains severe, a major portion of labor had been undergone and the reaction was unstable. Labor, instead of being retarded, was accelerated, particularly the first stage. The pains were used more efficiently and the patient was under better control. In some instances a prolonging of the second stage was noted. The perineal stage was more easily managed, the soft parts appearing more relaxed and lacerations being kept at a minimum. The majority of cases were conducted in hospital practice, some few in the homes. The latter were not quite as desirable or as successful.

As we are apt to learn more from our failures than our successes, I am tabulating a case, which is typical.

CASE REPORT.

R. B., a primapara, was admitted at 4:40 a. m., with slight uterine contractions, every 10 minutes. The fetal heart was 40.

6 a. m. Prepared. Pains every 10-15 minutes.

8 a. m. Pains every 10 minutes, and stronger.

9 a. m. Examined. Dilated, 3 fingers. Pains every 3 minutes.

9:30 a. m. Same. Fetal heart 144.

9:40 a. m. Scopolamin, gr. 1/100—very noisy and restless.

10 a. m. Scopolomin, gr. 1/200. Patient quiet and unable to recognize objects. Thirsty.

10:20 a. m. Apomorphin, gr. 1/60. Patient restless.

10:25 a. m. Chloroform. Patient asleep.

11 a.m. Very restless. "Memory test."

11:20 a. m. Scopolamin, grain 1/200.

11:25 a. m. Chloroform. Noisy and uncontrollable. Patient had to be controlled by chloroform to be quieted. This stopped the pain.

11:30 a. m. Pituitrin, minims 3. Pains had slowed up; improved in 3 minutes. Fetal heart 150.

11:45 a. m. Pituitrin ½ c.c.; very noisy, restless and difficult to handle.

12 m. Chloroform at intervals.

1:45 p. m. Delivery. Full-term living female, cried immediately; color normal. Laceration 2nd degree; weight 7 lbs., 8 oz. Presentation-vertex; position-L. O. A. Hemorrhage, normal. After delivery quiet and fell into natural sleep, arousing at 4 o'clock for cup of tea.

Next day: Mother had no recollection of her labor, following the inhalation of chloroform. She appeared fresh and rested and her mental condition is good. The baby is normal in every respect.

Unfortunately, such an unsatisfactory experience too frequently occurs in the hands of those just learning the use of the method. The initial injection should have been given earlier and the apomorphin along with it. The patient did well, though, until the "memory test" was applied. She was restless and should have been given chloroform; instead, she received another injection of scopolamin, and after awhile became noisy and almost uncontrollable. Finally chloroform at intervals had to be resorted to, the pains diminishing appreciably, requiring the use of pituitrin on account of a prolonged second stage. Delivery was satisfactorily completed, the amnesia was perfect, but the conduct of the case was made very difficult, the result of an overdose of scopolamin.

My experiences, while limited, have satisfied me of the value of the method, and justifies its use; one's proficiency will increase with the number of cases in which it is used.

CONCLUSIONS.

1. Scopolamin-apomorphia amnesia is a procedure which, if begun at the proper time, and given with attention to the essential details, insures, in most cases, a relatively painless labor, and the effacement from the mind of recollections of this event. Those cases in which the amnesia is not wholly satisfactory have at least been benefitted by affording them some degree of relief.

2. Instituting its use in the second stage is a practice that should be discouraged, for, with few exceptions, nothing but unsatisfactory results will obtain.

3. Labor, instead of being retarded, is more frequently hastened, particularly as regards the duration of the first stage.

4. The percentage of cervical and perineal lacerations is very small and second degree lacerations are comparatively infrequent.

5. The baby is occasionally drowsy, but quickly reacts; nothing approaching the morphin narcosis has been observed.

6. Due to the conservation of energy and a minimum of exhaustion, the postpartal convalescence is most satisfactory and refreshing.

7. Too little medication negatives the method; overdosage, while producing a total loss of memory, does result in difficult management of the case.

8. Experience is absolutely necessary in this procedure, just as in perfecting any other obstetrical practice. The physician should be *primarily* a good obstetrician, and *secondarily* a user of amnesia-producing methods. Then, its use will be broadened, less criticism will follow, and drugs will not be called upon to bear alone the brunt of responsibility for the mortality or morbidity which may occur in the cases in which it is employed.

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ABSTRACT OF DISCUSSION.*

Dr. R. E. House, Ferris: In order to give scopolamin anesthesia to the best advantage, I worked with Gwathney for some time to find what was the best technic to use. We worked out one that was satisfactory to both of us. I have not been able to get the physicians of Texas to adopt the method; in other states it is used to a large extent. I have never delivered a woman in a hospital, doing all my obstetrics in the home. The greatest trouble with the profession is a fear of the scopolamin. If 1/40 grain apomorphin is given, it is not necessary to give a very large synergistic dose of scopolamin. Dr. Smythies of Memphis, in an address, said that atropin was as good as scopolamin. I tried out the two drugs on two dogs, giving 1/3 of a grain of each to each dog. The effect of the atropin was death, while the dog that had the scopolamin just went to sleep.

Dr. M. S. Seely, Dallas: From the investigations of such men as Dr. LeDoux, information is crystallized and then we are able to get the best results from the methods that are found to be best suited for the condition. The conclusions, as I gather them, are that the method is not useful for general practice because of the constant attention that is necessary. The most important criticism of it is that scopolamin is too uncertain; its effects too variable. Most of us have passed through the hyoscin stage. In the graduated doses there are many advantages over the stock H. M. C. tablets which are still used by some men. Dr. Pierce has brought out an ideal method for general practice. When it is employed, the attending physician may go on about his business; the patient is always quiet. If a general anesthetic is given at the right time, the analgesia is almost perfect. There is no necessity of guarding the patient; any of the family or neighbors can watch the case. The method is about as near fool proof as any can be. From this method I do not know who gets the most relief, the doctor or the mother.

Dr. Chas. P. Brokaw, Houston: I have used scopolamin almost continuously for 18 years. I have used pituitrin with the scopolamin since 1911. Fortunately, there have been no parental deaths among my cases, but there have been fetal deaths. I do not think any of the deaths were due to scopolamin or pituitrin. I always use strychnin when I use scopolamin because of the depression produced by the scopolamin, giving the strychnin in 1/30 grain doses. I have never used apomorphin; I have known of its use in 1/10 grain doses, which seem to me very large doses. I have often combined ⅛ grain morphin with the scopolamin, which is a very great aid. I never repeat the scopolamin. With the proper use of chloroform, the baby will be born and the mother will not know when the birth occurs.

Dr. E. F. Hamm, Mexia: I do not wish to take issue with the essayist or to criticise, but to add emphasis to the necessity of doing better obstetrics. The average country doctor must do everything, so if he is the family doctor he is doing the obstetrics. Anyone that is contributing to the betterment of obstetrics and improving the work of the country doctor is certainly doing a superior service to humanity. Sometimes, though, we find a man who will attend all the medical meetings and will get nothing out of them. I know of such a man who asked a woman attendant for a hairpin with which to rupture the membranes.

Dr. J. A. Wall, San Antonio: I listened with great interest to both papers, especially that of Dr. Le Doux. I have for a number of years used a number of different preparations of scopolamin. There is not a great deal of difference in opinion as to the form of drug used to produce analgesia. A large part of the success of any method depends on the skill and good judgment of the operator. One thing that must always be kept in mind and that cannot be emphasized too strongly, is that if any form of opiate is given in too large doses one will get into trouble. At first I used a combination of 50 per cent magnesium sulphate with morphin ¼ grain, and it proved to be too much. I now never use over 1/6 to 1/8 grain, and since this dose has been adhered to I have not had any trouble at all. The scopolamin-morphin method of analgesia in obstetrics will never be adapted to general practice; the method must be varied too much with every case to become universally used. There is too much difference in the reaction of the patients. My experience with scopolamin is that it is safe in 1/100 grain doses and can be repeated every hour for two or three doses and then every two hours until delivery. I use the following method to be able to give exactly 1/100 grain and not 1/125, or any other amount. The tablet is dropped into the syringe and an exact amount of water drawn up into the syringe. My way of handling these patients after they have been given the drug and until full effect is produced, is to put around the bed a sheet-crib, so that when the patient comes against this she will not fall off the bed, and this will obviate the necessity of holding the patient, which would increase her delirium and resistance to restraint.

Dr. Lucien LeDoux (closing): The results obtained by Dr. Pierce are, I believe, on a par with those reported and obtained by others who have run a sufficiently large series of cases to be qualified to give an opinion. While Dr. Gwathney's work is a step in the right direction, I do believe that it, unfortunately, has its limitations. It should, however, be added to our obstetrical armamentarium as a helpful and useful adjunct.

I wish to thank Dr. Brokaw for his suggestion. We should be careful never to restrain the patient nor use loud, harsh words, as the excitability will be increased by both. For the preliminary injection I give 1/100 of a grain; I repeat the dose, using 1/200 grain, and occasionally I may use another 1/200. This method was devised by a country doctor, and I see no reason why it cannot be used by men in the rural communities. The drug, scopolamin, in its purest form can now be obtained in sterile distilled water ampoules.

*Papers of Drs. F. A. Pierce and L. A. LeDoux, immediately preceding.

Tripp's Liquor Rheumatica.—During the past year there has been an extensive campaign on a nostrum known as "Dr. Tripp's Liquor Rheumatica," put out by a concern calling itself the Norwood Pharmaceutical Company. Before starting its newspaper campaign, the firm resorted to the old method of working the medical profession, and physicians were circularized with an urge to use Liquor Rheumatica in cases of "chronic rheumatism." Regarding the composition, the circular addressed to physicians vaguely mentions potassium iodid, "phytolaccarheuma"—whatever that may be—cimicifuga and calisaya and cinchona compound. The quantities of these drugs were not given. The "Liquor Rheumatica" now sold was analyzed by the A. M. A. Chemical Laboratory. From its examination the Laboratory concluded the preparation to be essentially a weak alcoholic solution of potassium iodid with a dash of cinchona alkaloid. There is no use for the exploitation of a mixture such as Liquor Rheumatica in the form of a "home remedy" for self drugging.—*Jour. A. M. A.*, October 31, 1925.

POSTOPERATIVE CARE OF GYNECOLOGICAL CASES.*

BY

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The most important phase of postoperative care is preoperative preparation. However skillful the surgeon, however finished his technique, the operation itself is a mechanical feat. The real test of generalship and ingenuity lies in the anticipation and prevention of complications by their early recognition and treatment, when they supervene. A quick interpretation of postoperative symptoms, and neither an overestimation of imaginary complications nor an underestimation of real and imminent dangers, are the essentials for success.

Until the patient has completely recovered there is no such entity as the "uninteresting case." The path of abdominal and pelvic surgery bristles with potentialities for mischief. Shock, acidosis, internal hemorrhage, sepsis, acute dilatation of the stomach, pneumonia, etc., are some of the examples of the earlier complications. Paralytic ileus, pulmonary embolism, mechanical obstruction, thrombophlebitis, etc., are later complications which hover expectantly over our patients and keep the surgeon always on the anxious bench.

PREOPERATIVE PREPARATION.

In preoperative preparation, every possible factor which may cause ultimate failure must be given serious consideration. In cases of anemia, hemophilia, jaundice, diebetes nephritis, bronchitis, etc., when no emergency exists, thorough and sometimes prolonged preparation is necessary. In cases of hemorrhage, shock, or toxemia, the preparation must be short, but as efficient as possible under the circumstances.

Thanks to the discovery of insulin, diabetes may be readily controlled; anemia, and jaundice and hemophilia, where operation is urgent, can be quickly improved by direct blood transfusion. Even in septicemia it is of great assistance in overcoming the toxemia. Acute bronchitis can be eliminated quickly by the intravenous administration of one of the analine dyes, such as gentian violet or neutral acriflavine. In cases of shock following severe hemorrhage, the effects are not due to loss of plasma, *i. e.*, the bulk of the fluid contents of the blood, but to loss of the red cells themselves—the oxygen carriers, with the resulting depressant effects on the vasomotor centers. It is obvious from this that infusion of saline or glucose solutions in such cases, cannot compare in usefulness or immediate effect with direct blood transfusion. By the latter both the plasma and erythrocytes are replaced. Blood transfusion is also the surest and quickest way of increasing the clotting power of the blood in hemophilia, jaundice, etc. Horse serum, thromboplastin. etc., may be given second place, with calcium feeding a poor third.

Most of the postoperative distress attributed to so-called "gas pains," is the result of well meaning, but mischievous catharsis a few hours prior to operation. In reality, the pains are due to misplaced and futile peristalsis. The intestinal contractions are stimulated on the one hand by a residue of irritating drugs or chemicals, and the bowel movement held in check on the other by the effects of the anesthetic and subsequent necessary hypodermics of morphin or other opiates. The patient will be much more comfortable after the operation if no laxative has been given from 48 to 72 hours before, only one enema being used 3 or 4 hours before operation. Remember that severe catharsis causes depletion of body fluids and intestinal fatigue. Purging, together with the old-time system of starvation, are two important causes of acidosis. If the unfortunate patient but knew that the intense thirst, sweating, vomiting and abdominal cramps are in all probability due, not to the operation itself, but to our stupidity, he would curse us with merited curses. There is a tendency to give cathartics too soon after operations; before the fourth or fifth day they are of little use and cause unnecessary distress. As a rule, an enema will do all that is necessary.

Crile has pointed out that patients with a preoperative thready pulse and distended abdomen should be supported by (1) an abundant supply of water by every route, especially by hypodermoclysis; (2) an abundant supply of oxygen by transfusion if necessary; (3) maintenance of the semipermeability of the lipoid cell membrane by employment of nitrous oxid-oxygen, analgesia, not anesthesia, plus local anesthesia; (4) maintenance of an optimum temperature. especially by hot packs over exposed viscera, and by other necessary means, and by (5) preserving the integrity of the brain and liver by minimum trauma, long periods of rest and sleep, and morphine when required.

To quote the statement of one of our famous surgeons, "Never operate upon a patient who has been vomiting previous to the operation without first washing out the stomach." Fear causes acidosis, hence the nervous, frightened patient is a menace to

*Presented to the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

herself. A few words of encouragement, and morphine will do much to make a tranquil preoperative, as well as postoperative patient. This seems a small thing but in reality is a big factor towards a successful operation. It is scarcely necessary to refer to the many minor points of such major value to the patient, but one is worthy of emphasis. Nearly every patient complains of severe pain in the back muscles for days after operation. The flat operating table, with resulting back strain is usually responsible for this. Small pillows under the head, small of back and knees will go far to prevent this.

All surgeons agree that unnecessary trauma is dangerous. Care must be used in handling the intestines, especially. The use of heavy abdominal packs, and the tendency of many surgeons to attempt to perform extensive abdominal operations through small incisions, is to be deplored. Large incisions are advocated, allowing a clear field and free access to the operative area.

For several months, in all pelvic and abdominal operations where there was a possibility of soiling the peritoneum, as in appendectomies, salpingectomies, intestinal anastomoses, etc., or where symptoms of infection from unknown causes have occurred from 24 to 48 hours after the operation, the following routine has been adhered to, with excellent results:

A hypodermoclysis of normal saline, 1500 to 2000 cc. with 1/16 per cent of novocain, is given slowly; free use is made of morphine for pain and as a cardiac stimulant, and intravenously 30 cc. of 1 per cent solution of neutral acriflavine is given. If there has been a probability of soiling the tissues, neutral acriflavine is given as soon as the operation is finished. If this is impossible for any cause, it should be given within 6 or 8 hours after operation. Whenever symptoms of infection without discernible cause occur, where, perhaps, the only symptoms are a rise in temperature to about 101° F. and a slightly rapid pulse, it is given at once. Almost invariably the temperature will drop within 24 hours.

Similar results may be obtained with other analine dyes, such as gentian violet, mercurochrome (220 soluble), and acri-violet. On the other hand, neutral acriflavine seems to possess all of the bactericidal advantages which the others have, with none of their disadvantages. Gentian violet and acri-violet stain the skin a greenish bronze in 24 hours; mercurochrome is followed by marked reaction and can produce ptyalism and stomatitis. Neutral acriflavine stains the skin a light yellow, similar to jaundice, and is excreted through the urine, sweat glands, and vaginal secretions.

As a prophylactic or cure in acute postoperative bronchitis neutral acriflavine is of decided value. Analine dyes, such as neutral acriflavine and gentian violet, will kill most gram positive organisms. Their effect on gram negative organisms is still doubtful, although with certain of these the dyes seem to cause inhibition of growth. Staphylococcic and streptococcic infections are easily controlled, and either prevented or cured. However, where pus has already formed, the usual free drainage is essential to success. Dyes will only kill bacteria which are accessible to the blood or lymph streams, hence a pus pocket or dense cellular infiltration may lead to reinfection, even after the injection of the dyes. If the temperature falls to normal 24 hours after the first injection, and then gradually rises again to its former level, either the initial dose has been small or there is a focus outside the blood stream causing reinfection. A second injection may be given from 24 to 48 hours after the first.

The disadvantages of the use of analine dyes in the treatment of infections are so slight, as compared with their great advantages, that such disadvantages are hardly worth considering. Where even ordinary care is used there is no danger of ill effects.

No matter what therapeutic or surgical ideals fall by the wayside in our forward march, painless, bloodless and infectionless surgery must be our aim. If, during the next two decades we continue to pay the same attention to improvement in preoperative and postoperative care as we have during the last two, the mortality from ordinary abdominal and pelvic surgery will be greatly reduced.

Adropsedema, A Recrudescence of Shotgun Therapy.—Adropsedema is a "dropsy cure" of the Anasorcin type, marketed by the Van Seaton Chemical Company, Fort Worth and Chicago. It comes in the form of tablets which, according to a circular, contain in each tablet: Strophanthin 1/240 gr.; spartein sulphate, 1/64 gr.; "apocynin," 1/4 gr.; "ext. urginea scillae," 1/5 gr.; "gelsemin," 1/8 gr.; "ext. sambucus," 1 gr.; ferrous carbonate, 1/2 gr. Elsewhere the "formula" includes "cactus grandifolium, 4 gtt.," "gelsemium" instead of "gelsemin," and "reduced iron" instead of ferrous carbonate. The "cactus grandifolium 4 gtt." probably refers to some liquid preparation of cactus grandiflorus. While the complexity of the "formula" makes it impossible to use this preparation intelligently, the advertising asks physicians to study the "formula" of this blunderbuss. The thoughtless and ill-considered use of this preparation is suggested by statements such as "Adropsedema does the work; what more do you want? When in suspense, prescribe Adropsedema."—*Jour. A. M. A.* October 10, 1925.

CARDIAC INFARCT AND CORONARY SCLEROSIS.*

BY

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Post-mortem studies have done much to clarify our ideas of coronary disease and its consequences. The Clinical and Pathological Club of El Paso has done two hundred autopsies during the last two years, and we have found in 25 per cent of them, badly diseased hearts and aortas. Four per cent showed cardiac infarct or cardiac aneurism. There were three cases of rupture of the left ventricle, following coronary obstruction. In two specimens the right coronary was completely occluded, and in a third the right coronary was almost closed at its orifice. There were five cases of cardiac aneurism, one of which was due to syphilis. It has been our experience that well marked lesions will be overlooked unless the examination is done in detail and includes opening of the coronaries and histological studies.

Coronary sclerosis is very common. Its causes are those of arteriosclerosis in general: Infections, intoxications and errors in diet.[1] Age *per se* is not a cause. Although syphilis infects 10 per cent of the race, it shows no increased frequency in arteriosclerosis.[2] Infections, however, especially of the rheumatic type,[3] decidedly increase the frequency of atheromatous arteries. As to diet, what goes into the stomach gets into the blood. The quantity and kind of material passing through the vascular tubing must exercise some effect upon its walls, just as a road must be affected by the kind of traffic that goes over it. That arteriosclerosis begins in the intima seems to bear upon this point.

The results of coronary occlusion depend upon the size of the vessel affected, whether stoppage is sudden or gradual; the amount of collateral circulation; and the general state of the heart muscle. The right coronary is not so important as the left, the anterior interventricular branch is next in importance. One or even both[4] coronaries may be completely closed and still the heart remain relatively sound and efficient, providing the obliteration takes place slowly during months or years. When both coronaries are closed collateral circulation is established just as gradually as the occlusion takes place, through the Thebesian orifices[5] and by way of the pericardial[6] circulation through anastomosis with the internal mammaries and the nutrient arteries of the lungs. The clinical picture will appear in the case reports.

Case No. 1 was one of coronary obstruction, cardiac aneurism and rupture of the septum. Dr. J. H. M., an American, aged 65 years, of good habits, had for several years had high blood-pressure and indigestion, with gas and constipation, and attacks of gall-stone colic. Last Christmas day he ate heavily and that night had violent pain in the mid chest, going to both shoulders, with vomiting, dyspnea and prostration. He said that his trouble was rheumatism and indigestion. The pain continued for a week and was only mitigated by the frequent use of morphin. The pulse was weak and rapid, with signs of heart failure, and death seemed inevitable. On the twelfth of January he was brought to El Paso. I saw him with Dr. L. G. Witherspoon. He was very weak and apprehensive, dyspneic, cyanotic, and covered with cold sweat. He still had pain across the chest at the nipple line and going down the right arm. The temperature was 100, the pulse 120, the respiration 32, and the blood-pressure 110/90. The urine showed a few hyaline and granular casts, with sp. gr. 1025. The heart was very large and the sounds feeble and distant. There was congestion at the bases of both

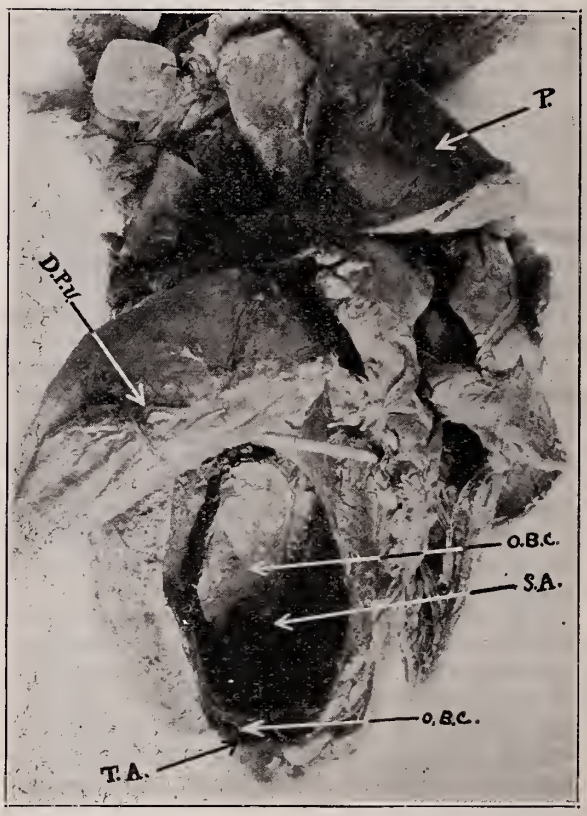

FIG. 1. Photograph of dissected heart in Case No. 1, showing large ventricular aneurism. P.—Reflected pericardium. D. P. V.—Dilated peripheral vessels. T. A.—Thinned wall at apex. O. B. C.—Organized blood-clot. S. A.—Site of aneurism.

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 7, 1925.

1. McCallum: "Etiology of Arteriosclerosis," Physiol. Review, 1922, Vol. ii, p. 70.
2. Willius and Brown: Amer. Jour. Med. Scien., August, 1924.
3. Ophuls: N. W. Medicine, November, 1921.
4. Allbutt: Diseases of the Heart Including Angina Pectoris, Vol. ii, p. 21.
5. Wiggers, Carl: The Circulation in Health and Disease, 1923, p. 155.
6. Gross: The Blood Supply to the Heart, Paul H. Hoeber, Pub., N. Y.

lungs. The abdomen was negative. He gradually failed and died suddenly, January 20, 1925. The diagnosis was myocarditis and cardiac infarct.

Post-mortem: The heart weighed 1050 gm. The pericardium was thickened, injected and adherent. There was a large aneurism of the left apex and septum. A thick organized clot was spread over the apex and interventricular wall, extending upward to a rupture in the septum, just beneath the right semilunar valves. Emboli from this clot had lodged in the lungs, causing infarcts. The right coronary was atheromatous, deeply imbedded in adhesions, but patent throughout. The anterior interventricular and marginal branches of the left coronary were both occluded high up. Organized blood clot, hemorrhage, and round celled infiltration were wide spread. No pathology was found in the gall-bladder or stomach.

Case No 2 was one of cardiac aneurism, old and recent infarcts, right coronary occluded, and sudden death. R. T., an American, aged 68 years, was seen by Dr. Paul Gallagher, December 28, 1924. For ten years he had attacks of indigestion, with pain going into the back or around the costal margins. On one occasion this was so severe that he fainted, but was able to work next day. On Christmas day, he again had pain and indigestion. He had been failing of late and was edematous to the waist line. The liver was large and suspected of being cancerous. There were no rales in the lungs. On January 12, 1925, after supper, he said he was not feeling well, became dyspneic, and without particular pain, died suddenly.

Autopsy: The heart weighed 750 gm. The left ventricle was dilated, scarred and thinned out at the apex. The septum was thinned, scarred, and bulged into the right ventricle. The right coronary was completely closed at its origin, and beyond this it was fairly patent but much calcified. The left coronary was very tortuous and calcified. The interventricular branch was also calcified and 50 mm. from its origin became a sclerosed cord. At the upper part of the left obtuse angle was a small recent infarct with dense round-celled infiltration. The muscle of the right ventricle showed brown atrophy. The liver was large and congested, the gall-bladder large and distended, but no gall-stones and no malignancy were found. The stomach was very red and congested.

Case No. 3 was one of cardiac infarct, and rupture of the heart. D. S., an American, ex-soldier, aged 59, had always been well, except for shortness of breath in recent years. For two years he had had gas on his stomach, with attacks of pain under the left ribs, lasting two to three days. On March 14, 1924, he worked in the garden all morning and ate heavily at noon. He returned to work and suddenly fell unconscious. When he recovered there was pain in the epigastrium and left shoulder. He belched gas and wanted to vomit to relieve the pain. When seen by Dr. E. W. Rheinheimer, his expression was anxious and his lips slightly cyanotic. He was unable to lie down because of dyspnea and pain and was perspiring freely. The heart sounds were barely audible, the heart dilated, the pulse rate 120, and the blood-pressure 140/80. The abdomen was distended. One-half grain of morphin made him fairly comfortable, but the pain returned, and the blood-pressure fell to 86/67, and he was very weak. He was removed to the William Beaumont Hospital. He was now semi-conscious, like one in uremic coma, and was cyanotic. His pulse was 112 to 130, the temperature 99.4°, F. and the blood-pressure 76/62. The urine showed a trace of albumen. The blood urea nitrogen was 44.4 mg. and creatinin 2 mg. The blood showed: leucocytes, 19,000; polys, 84 per cent. He died March 17, 1924.

Post-mortem Report (by Major F. E. Gessner): "The coronary artery is thickened and constricted, and contains organized blood-clot. Infiltration of blood in the tissue around the artery is partially organized. At the point of rupture the cytoplasm stains very poorly, the muscle fibers are very indistinct, and striations are absent. At the margin there is marked inflammatory reaction with infiltration of the muscle with endothelial cells and polymorphonuclear leucocytes, with coagulation necrosis.

Case No. 4 was one of "angina pectoris," followed by rupture of the heart, three months later. Dr. D., an American, aged 57 years, was seen by Dr. Calnan, in November, 1923, while in great agony with

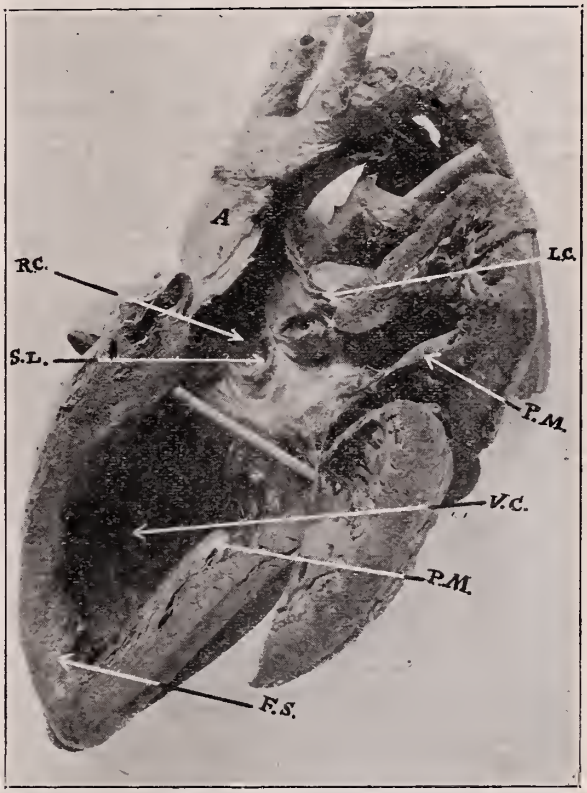

Fig. 2. The heart in Case No. 2. A.—Aorta. R. C.—Right coronary, completely closed. L. C.—Left coronary. P. M.—Papillary muscle. S. L.—Semilunar valve. V. C.—Ventricular cavity. F. S.—Fibrous scar in apex of left ventricle.

dyspnea and pain that went from the stomach up the middle of the chest and down the left arm. His face was pale and his body was covered with cold sweat. He said he had gas on his stomach which he could not get up. The pain continued twenty-four hours in spite of full doses of morphin. He was not entirely comfortable until the end of two weeks. February 19, 1924, he went to breakfast, and on his return bought a cigar at the drug store downstairs and walked up to his office. Immediately he was struck with a pain about the heart, cyanosis, and struggling for breath, and collapse and death ensued before a physician could reach him.

Autopsy: The heart was ruptured at the site of an old scar, measuring 6 by 25 mm., and there were signs of a recent infarct. No doubt, his first attack of "angina" was due to coronary infarct. Dr. W. W. Waite reported: "Sections from the heart wall

in the region of the rupture showed a large amount of fibrous tissue and organized blood-clot into which had grown some blood vessels. There was some round-celled infiltration."

Case No. 5, was one of cardiac infarct and phlebitis, with prolonged convalescence and recovery. R. R., an American, aged 49, an insurance man of good habits, had always been well. On January 23, 1924, just after lunch, he had a violent pain under the upper sternum which went into both arms, worse in the right. He was fighting for breath and when examined would cry, "For God's sake, stop!", because of the aggravation of the pain. The pulse was 72 and regular; the temperature 98.6° F. He was given one-half grain of morphin, and finally chloroform. That evening the pulse was irregular and 110. He had vomited a great deal of blood. The pain continued, morphin being constantly necessary. I saw him with Dr. Crouse on the 24th. The respirations were 24 and irregular; the temperature 99 to 100.8° F. and the blood-pressure 114/72. The blood count showed leucocytes 20,000, polys 87 per cent. The urine was normal, the Wassermann negative, and the blood culture negative. The heart sounds were faint at the apex, but well heard at the base. The apex impulse could not be seen or felt. The heart was slightly dilated. Crepitant rales were present at the right base. The abdomen was soft and the spleen and liver not palpable. The next morning a loud friction murmur was heard over the heart, which disappeared in twelve hours. Later, the temperature ranged from 99.8 to 102° F. The blood-pressure went to 86/50. There were a few flurries of tachycardia and premature beats. Polygraphic tracings showed nothing abnormal. The conduction time was one-fifth of a second. On February 23, there was a friction rub just outside the apex and a rise in temperature. This was probably due to a small pulmonary embolism. Later he had phlebitis in the left leg. On April 16, the blood-pressure had risen to 122/80 and he was up and about the room. He spent the summer resting in San Francisco and is now at work. He has recently had several attacks like gall-stone colic, and other digestive disturbances. In view of the negative stomach and gall-bladder in cases 1 and 2 at autopsy, with histories of similar symptoms, it may well be suspected that in this case too, the damaged heart is the cause of the stomach and liver disturbances. *X*-ray examinations and tests for occult blood have been negative. There has never been any rigidity over the stomach or gall-bladder.

At the present time the electrocardiograph shows the "T" wave inverted in lead one, notching of the "R" wave in leads 2 and 3, and left ventricular preponderance.

Case No. 6.—H. B., a railroad passenger conductor, aged 62 years, had inflammatory rheumatism 28 and 18 years ago. For the last three years his blood-pressure has been 170 to 180, with some dyspnea on exertion. On May 23, 1924, he had "acute indigestion," much pain going up under the sternum and down the left arm to his little finger. He vomited freely, his hands were "cold as ice," and the pain was continuous for two hours. He thought his trouble due to fish eaten the day before. Following this, he had three more similar attacks at intervals of a few days. On June 14, at 4:00 a. m., a pain "like the stick of a knife" struck him in the upper chest and went down the left arm. It was unremittent until 11:00 a. m., when I saw him. He was constantly shifting his position in bed. He was slightly cyanosed; the respiration was 32 and irregular, the pulse 80, the temperature 98.6° F., and the blood-pressure 200/120. The heart was not dilated, nor the sounds much diminished in intensity. A quarter grain of morphin relieved his pain to some extent, but nitroglycerin had no effect. The pain continued and he had a bad night. Next morning, the temperature was 100.9° F., the blood-pressure 160/120, the leucocytes 14,000, and the polys 80 per cent. The Wassermann and urine were negative. On the third day, the blood-pressure had fallen to 120/80. The apex had moved outside the nipple line where it was readily palpable. The liver was now easily felt, and the belly was soft. There were moist rales in base of the left lung.

My observations have been that heart failure is not immediate in coronary occlusion, except in the most severe cases. The signs just recited usually appear after a day or two.

Mr. B. was kept in bed at absolute rest for a month and on vacation another month. At that time he was feeling very well; the liver was not palpable; the heart was of normal size, and the lung congestion gone. His blood-pressure was 120/80, where it still is. This permanent fall of blood-pressure has been noted in other cases. He is at work and feeling very well, with no dyspnea or pain.

Case No. 7, was one of cardiac infarct, ascites and double pleural effusion. F. C., a Mexican gardener, aged 51, had always been well except for a little shortness of breath and aching in the chest on going up hill. One Sunday morning in August, 1923, he worked as usual and played with the children in the afternoon, but at 1:00 a. m. that night, he woke with a pain in the middle of his chest high up and about the clavicles. He was struggling for breath. He said it "felt as if a railroad spike were being driven into his body." He had gas on his stomach which he could not get up. He had to have morphin for 48 hours before he was free from pain. The dyspnea persisted. Some days later he became dropsical, with swollen legs and scrotum, and with the belly full of fluid and the liver swollen. A large amount of clear fluid was withdrawn from both sides of his chest on three occasions. Six weeks after the onset his chief complaint was dyspnea. The feet were swollen and ascites was present. The pleural effusion had disappeared, and the lungs were clear except for a few rales at the bases. The abdomen was soft and the liver not palpable. The heart was slightly enlarged, the sounds clear, and there were no murmurs. The blood-pressure was 120/80, and the pulse 80 to 96. He had slight fever at times and was very weak. The *x*-ray showed the diaphragm adherent on both sides. The sputum was negative for tubercle bacilli and the Wassermann negative. The urine was normal. A polygraphic tracing was normal, with normal conduction time. At the present time he has heart failure with edema, ascites and pleural effusions. He has never been able to work since the attack, but was fairly well for some months.

Cardiac infarct is by no means always immediately fatal. Gordinier[7] reports thirteen cases of conorary occlusion with six recoveries. In sixty autopsies on coroner's inquest cases Le Count[8] found twenty-six cases of acute coronary infarct and thirty-four of fibrous myocarditis, the latter probably due to healed infarct. Davenport[9] reports a case where the left ventricle was ruptured by a large nail in an attempt at suicide. The

7. Gordinier, H. C.: Amer. Jour. Med. Scien., August, 1924.
8. Le Count: Jour. A. M. A., April 6, 1924.
9. Davenport, Geo. L.: Jour. A. M. A., June 7, 1924.

pericardium was opened and the interventricular branch of the left coronary ligated to stop the bleeding. The man made a perfect recovery, probably because the heart muscle was normal.

If coronary plugging is very sudden, death may occur before any infarct has time to form. This is illustrated by Case No. 8.

Case No. 8, was one of very extensive calcification of both coronaries, with thrombosis and instant death. Mrs. S., aged 84 years, was well until three months ago, when she began to have dropsy and nocturnal dyspnea, which were relieved by digitalis. When seen on September 17, 1924, she was stuporous and the pulse was 80 and absolutely irregular. The blood-pressure was 210/120. There were moist rales at the bases of both lungs. She felt better the next morning and after breakfast she had a little headache and slight pain under the sternum, going into the neck. She lay down and the attendant left the room for a moment, returning to find Mrs. S. dead. She had not changed her position at all. I suspected coronary occlusion.

Post-mortem showed both coronaries extensively calcified, and at a marked narrowing in the right circumflex, artery 2.5 cm. from its origin, was a clot 25 mm. long, which Dr. W. W. Waite pronounced antemortem. Sections showed brown atrophy and round-celled infiltration. In cases like this infarction has no time to develop.

Instant death means sudden circulatory standstill. There can be no other cause; of course, there are other causes of sudden cardiac arrest besides infarct. Abdominal and cerebral accidents cannot snuff life out instantly, for the circulation will still go on for a little while at least. Warthin[10], Welch[11], Councilman[12], Porter[13], and others, twenty-five years and more ago, called attention to coronary occlusion as the most common cause of sudden death. Their work seems to have been forgotten, for "ptomain poisoning," "acute indigestion," and other misnomers have been substituted for post-mortem facts in recent years.

Coronary occlusion may occur in youth, especially from syphilis or vegetative endocarditis.

Case No. 9.—V. S., was a Mexican laborer, aged 24. So far as could be learned, he had always been quite well and strong. On December 26, 1924, he worked all day and that evening was found dead beside the street car tracks with one arm crushed. There was very little bleeding, and Dr. W. W. Waite thought that he must have been dead before the injury.

Post-mortem: In two of the left papillary muscles there were recent infarcts. In the portion of the left posterior ventricle supplied by the right coronary, there were several scars representing old infarcts. The aortic semilunar valves were thickened and deformed, and just above them the aorta was ulcerated and scarred by syphilis. The right coronary was completely occluded at its origin, but beyond this was patent and in its distal portion was a clot 30 mm. long. The left coronary was much narrowed by the same syphilitic process.

Coronary occlusion in youth is rare. Vaquez[14] reports a case in a boy of 18 years in which death was very sudden. At autopsy the left coronary was found occluded by a thrombus.

DIAGNOSIS.

Any artery may become painful when suddenly obstructed. The other symptoms will depend upon the functions of the organ supplied. They are largely protective phenomena. The symptoms of coronary infarct are just what we might expect:

1. From the infarct with its congestion, edema, damaged muscle, necrosis, infiltration of polymorphonuclear leucocytes, and pericardial plastic exudate, occur: Fever, pain, leucocytosis with high poly count, and pericardial rub.

2. Those symptoms due to heart failure: The sudden crippling of the heart gives rise

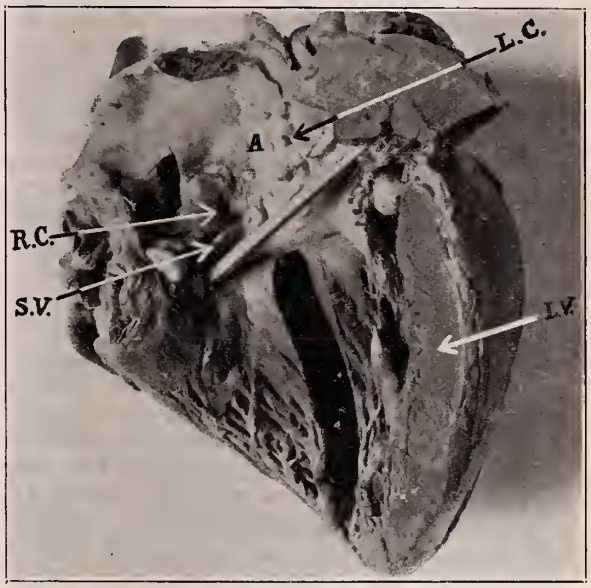

FIG. 3. The heart in Case No. 9, showing blind pouch of closed right coronary artery. L. C.—Left coronary, partly closed. A.—Aorta. S. V.—Semilunar valve. L. V.—Left ventricular wall.

to pulmonary edema and congestion, and sometimes hemoptysis, dyspnea, vomiting, gastric hemorrhage, swollen liver, cyanosis, dilatation of the heart, feeble or absent heart sounds, fall of blood-pressure, restlessness and vasomotor signs such as flushing or paling, and finally, if the lesion is bad enough, shock, collapse and death.

Angina pectoris is different. There is no fever, no leucocytosis, the pain is less persistent, there is no persistent dyspnea, and

10. Warthin, A. S.: Ref. Hd. Bk. Med. Sc., Vol. iv, p. 80, 1902.
11. Welch, William H.: Papers and Addresses, Vol. i, p. 288.
12. Councilman, W. T.: "Sudden Death Due to the Heart," Boston Med. and Surg. Jour., November 2, 1890.
13. Porter, W. T.: "Further Researches on the Coronary Arteries," Jour. Exper. Med., January, 1896.
14. Vaquez: Diseases of the Heart, 1924, p. 434.

no prolonged heart failure follows the attack.

The surgical mind may confuse cardiac infarct with acute pancreatitis, or ruptured duodenal ulcer or gall-bladder. Levine and Tranter[15] report two such cases demonstrated at postmortem. Faulkner, Marble and White[16] report a case where the gall-bladder was opened for stone and no pathology found. Cardiac infarct was demonstrated post-mortem. Kerr[17] very recently reports such a case. Haller[18] describes two cases operated upon for acute pancreatitis, in which nothing was found. At post-mortem cardiac infarct was found in both. We again refer to the frequency of abdominal symptoms in our own cases. Of course, the opposite mistake may also be made[19]; but sudden heart pain going down either arm, with sudden and persistent heart failure or dyspnea is not likely to be due to an abdominal lesion.

PROGNOSIS AND TREATMENT.

That many cases recover one cannot doubt. The post-mortem evidence is convincing. Our own cases of complete coronary obstruction of long standing, of cardiac aneurism with old healed scars and subsequent rupture, are offered in evidence. Early diagnosis and proper care will diminish the fatalities and make recoveries more complete and lasting. Collateral circulation must have time to become well established; repair by scar formation, by clot organization and by pericardial adhesion, takes place slowly.

As to treatment, the first thing is a proper diagnosis. Realizing the pathology, no one will question the need of early, prolonged, and absolute rest. After tying the femoral artery in a dog, it takes three months for collateral circulation to be well established.[21] In Davenport's case of ligation of the coronary artery[9], the T wave was still inverted in all three leads at the end of 59 days. Finally, 257 days after the operation, the electrocardiogram was normal. Naturally an extensive cardiac infarct cannot heal in a few days or even a few weeks; many a tragedy occurs because this fact is disregarded. At least a month of absolute rest in bed is necessary, to be followed by rest and quiet until a good scar and collateral circulation can be well established. This will usually take three or four months more.

Can drugs be of service? There is reason to think so. Nitroglycerin dilates the coronaries.[22] I give one-hundredth of a grain every three hours and keep it up for a long time. Sodium citrate has been used successfully in beginning gangrene of thromboangiitis obliterans. I have given it by mouth in large doses in cardiac infarct. Intravenously, it may be given daily in doses of from 12 to 20 cc. of a 30 per cent solution.

The diet should be light. Keep the bowels open and never overload the stomach. These people are apt to "dig their graves with their teeth." Whether fat or lean, they generally eat unwisely and too much.

Finally, when the heart has healed, careful graduated exercise will help to improve the collateral circulation and the heart muscle.

ABSTRACT OF DISCUSSION.

Dr. R. W. Baird, Dallas: At the outset of this discussion, I want to congratulate the medical fraternity of El Paso on having such an organization as the Clinical and Pathological Club, and to compliment these gentlemen on securing 200 autopsies in the period of 2 years. They are far ahead of us in Dallas in that regard; we would like to know how they do it.

Coronary thrombosis as a clinical entity, has been considered one of the rare accidents of medicine. So unusual is it thought to be, that very little space is given to the consideration of the subject in our text-books. We have been satisfied in cases of sudden death to write "angina pectoris" or "cardiac failure," leaving it to the pathologist to make a diagnosis of coronary thrombosis. Since hearing Dr. Werley's good paper on this subject, and studying his case records, I am persuaded that it must not be so rare after all. If not so unusual as thought, why so few antemortem diagnoses? One good reason is that the person so afflicted is often dead when a doctor reaches him, or is in such an extreme condition that relief is uppermost in the doctor's thoughts.

In order to make a diagnosis we must have a clinical picture of a disease in our minds. Let us take Dr. Werley's cases and see if we can work out a definite clinical entity. In the first place, excluding the case of the young man 24 years of age, which I am sure is exceptional, our patient is a man past 55 years of age in the ratio of 7 to 1, and a professional man. The doctor's cases include two physicians, one insurance man and two laborers. Past histories are significant; only one of his patients gave a history of inflammatory rheumatism; in only one did he find lues—arteriosclerosis is expected in these cases. As a rule these patients give a previous history of attacks of shortness of breath coming on suddenly, with pain. The pain is usually confined to the chest. His cases include some with gastro-intestinal upset, and so we find in our experience.

Sometimes the history of a previous heart attack was quite meagre. The onset of cardiac infarction is sudden, coming on often without warning as a severe, sharp pain under the sternum or in the epigastrium, radiating into the shoulders, neck and arms. The pain is persistent, lasting for several hours, and in that regard differs from angina pectoris. Following quickly after the pain and

15. Levine and Tranter: Amer. Jour. Med. Sc., January, 1918.
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dyspnea, there are usually nausea, vomiting, cyanosis and cold sweats, and the patient may go into collapse and die.

In agreement with several of Dr. Werley's cases, it is the experience of other men for patients to recover from attacks of coronary thrombosis. Some time ago, I saw a gentleman, 59 years of age, a merchant, who as suffering from a severe pain in his epigastrium, radiating into his thorax. This pain had been present for six hours and was very severe and agonizing. It came on shortly after a rather unusual exertion for a man of his age. The physician in attendance was considering seriously an abdominal operation on account of the location of the pain, the nausea and vomiting, with some rigidity in the upper abdomen. On going into the past history, we found that he had had slight pain around his heart with dyspnea brought about by exertion, and so we concluded that it was a cardiac pain caused by coronary thrombosis. He was ill for several days but lived four or five months and died suddenly from cardiac failure.

MENINGITIS: ETIOLOGY, CLASSIFICATION AND PROGNOSIS.*

BY
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and
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The purpose of this paper is not so much to give you something new as it is to remind you of the constant danger of this malady.

Meningitis, as you probably all know, is an inflammation of the coverings of the brain or cord, or both, usually involving the pia-mater and arachnoid. The reaction may be local or general. The different forms differ only in their etiological factors.

Charles Lyman Green gives the following brief classification of meningitis: (1) Meningococcic—sporadic, epidemic, or pandemic; (2) tuberculous—due to direct invasion associated in eighty per cent with pre-existing tuberculous foci; (3) syphilitic; (4) septic; (5) secondary. Various organisms causing secondary forms are: Pneumococcus, streptococcus, staphylococcus, Bacillus influenzae, Bacillus pyocyaneus, Bacillus typhosus, Bacillus mallei, Bacillus pestis, Bacillus coli, micrococcus tetragenous, and the gonococcus.

The most common causes of secondary forms according to Joseph B. Neal are: Pneumococcus, streptococcus, Bacillus influenzae, and staphylococcus in the order named. These organisms caused a total of 110 of Neal's cases out of a series of 114 secondary forms reported by him.

All cases of meningitis are characterized by early symptoms of vomiting, headache, fever, or a chill, moderate stiffness of the neck, Kernig's sign, and clear mentality. The picture soon changes to a more grave one where there is persistent vomiting, marked stiffness of the neck and delirium, rapidly passing into coma. The progress of the disease depends upon the etiological factor. Vomiting is the most pronounced early symptom in children, while headache is the early symptom in adults.

Marked headache with fever, forceful vomiting, with rigidity of the muscles of the neck, and with a more or less sudden onset, would cause one to think of meningitis. A search should be made for possible foci of infection about the nose, throat, accessory sinuses, and the middle ear. A recent operation about the head, sinuses, or throat followed after a period of from two to five days by the above signs, should excite serious thought of meningitis. If none of the above factors can be established, a sporadic case of meningitis of the meningococcic form would be very probable.

CASE REPORTS.

Case No. 1.—Very recently a member of our staff was called to see a man who had had a discharging ear for a long time. The patient's mentality was excellent but he had nausea and vomiting of the forceful type, intolerable headache, and slight rigidity of the muscles of the neck. The patient was sent to the hospital where he became markedly delirious, and on the second day he died with all the signs of fulminating meningitis.

Case No. 2.—The patient was administered three doses of salvarsan for lues and developed a severe salvarsan dermatitis. His face and body desquamated three successive times, and following this an erysipelas developed upon patient's face. There had been a chronic discharge from one ear. The patient died on the fourth day after the facial erysipelas appeared, with characteristic symptoms of meningitis. Death occurred six weeks from the onset of the salvarsan dermatitis.

Case No. 3.—The patient came into the hospital complaining of chronic infection of the middle turbinate bone. The condition was treated locally and the infection apparently cleared up. The turbinate was removed and on the fourth day thereafter the patient was suddenly seized with an intense headache, nausea, rigidity of the neck, vomiting, and delirium. This deepened into a coma and the patient died on the second day after the onset.

Case No. 4.—M. L., aged 30, a male, entered the hospital in an unconscious condition. While at work some days before, the patient was knocked to the ground by a falling timber and was unconcious for several minutes, but on getting up he went on with his work. During the rest of the day he felt as though he was on fire, his bones and muscles tingled. The day following he did not work, but as he did not feel any worse, he went to work as usual the following day. However, he soon began to feel badly, felt weak, and could not do his work with the same speed and ease as before. That night he was taken ill, had a continuous crawling sensation up and down his back, and a rise of temperature. He was given an opiate for relief. After a restless night, he developed a severe headache, occipital in type, and he felt as though he was going to die. Projectile vomiting began and the patient was sent to the hospital. An examination showed the pupils to be dilated, the pulse 76, regular and full, the knee jerks exaggerated, with a suggestion of a

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 7, 1925.

Babinski, nuchal rigidity, positive Kernig's and a positive Brundzinski. There were fine tremors of the tongue, eyelids, and facial muscles. The leucocyte count was 21,700, with polys 90 per cent. The spinal fluid showed: Color, yellowish-green, very cloudy, cells 19,920 per cmm. with 98 per cent of polys and meningococci-present. The patient was treated with serum and made a complete recovery. This case was mentioned because it shows the constant danger we face if we do not examine the spinal fluid carefully for meningococci; this case would ordinarily be considered a pyogenic meningitis, but as the meningococcus was found a favorable result was obtained with specific antisera.

Case No. 5.—A. O., a female, aged 7, entered the hospital with fever and pain in the right side of the chest and with a definite lobar pneumonia. The following day, pain developed in the back and the fever continued around 103° F. The patient became unconscious and had a convulsion, cyanosis appeared and respirations ranged from 55 to 75 per minute, the pulse was filiform in character and the rate was 180 per minute, the toxemia was profound, and she seemed to be in a hopeless condition. The temperature rose to 107° F. The pupils were dilated, the lower jaw became fixed, the knee-jerks diminished and the Babinski, Oppenheim and Chaddock, signs were positive. Kernig's sign was intermittently positive, but nuchal rigidity and Brundzinski's sign was positive throughout. The leucocyte count was 31,000, with 90 per cent polys. Meningococci were present in the spinal fluid. A diagnosis of lobar pneumonia and meningococcic meningitis was made. Serum was administered and recovery followed. We deduce from this case the fact that meningitis complicating pneumonia may be due to the meningococcus. Failure to realize this fact would probably have resulted in fatal termination in the above case, without antimeningococcic serum.

Case No. 6.—In the beginning of the epidemic of cerebrospinal meningitis of 1912, one of the authors of this paper was consulted by a robust young man for an intolerable headache. The patient came into his office unassisted. The headache required a hypodermic of morphia for relief. In six hours the patient had to be visited at his home on account of a return of the headache and of marked nausea. The nausea was thought to be due to the previous morphia. No other symptoms were complained of at this time. On the following morning the patient was visited and was found to be feeling much better, but on inspection it was found that the neck was becoming rigid. He continued to grow worse through the day and twenty-four hours after the onset of the headache, the characteristic symptoms of meningitis were so manifest that a spinal puncture was made and the organism, diplococcus intracellularis of Weichselbaum was found. Upon consultation, serum was administered and the patient made a complete recovery. This case was mentioned because of its being the first case of epidemic meningitis seen in our community at that time.

After this case a great many other cases developed and a diagnosis was promptly made from the symptomatology, and treatment instituted early because the disease was known then to be prevalent in the community. Sporadic cases of the meningococcic type are very apt to escape early diagnosis as are those cases from other causes, unless one is constantly on guard. In cases known to be tuberculous, syphilitic, or who have had recent operations about the head, the accessory sinuses or throat, or those with foci of infection in regions contiguous to coverings of the brain or cord, or in all cases of pneumonia, influenza and typhoid fever, sudden changes in symptomatology accompanied by headache, delirium, or coma, should be investigated for meningitis. In all cases of established meningitis a determined effort should be made to establish whether or not the causative organism is the meningococcus, regardless of whether some septic cause may be suspected. Should the cause be found to be meningococcic it is important to the community in order to have quarantine regulations established; and it is more important to the patient in order that the proper serum may be administered.

PROGNOSIS.

Quoting again from Joseph B. Neal, he says that meningitis due to Freidlanders' bacillus is likely to end in recovery. Cases of purulent meningitis due to organisms other than the meningococcus have a very bad prognosis, but all are not absolutely hopeless.

In the meningococcic forms, Sophian reports one hundred and eighty cases which he treated in Dallas during the epidemic of 1912, with a gross mortality of 16 per cent. He states that Dr. Steiner, state health officer, collected a total of twenty-two hundred and eighty cases. The mortality among serum treated cases was 37 per cent, but among those not treated with serum, the mortality was 77 per cent. He further states that complications among those treated with serum were relatively few, as against those not so treated. He states that in the New York epidemic of 1904-5 the mortality was 90 per cent in two thousand cases. These were not treated by serum. In 1905, among one thousand and thirty-two cases reported eight hundred and twelve died, a mortality of 78.7 per cent, with no serum. In 1907, of eight hundred and twenty-eight cases reported, there was a mortality of 77.5 per cent, among those untreated with serum.

In tuberculous meningitis the mortality is one hundred per cent so far as our actual observation has been, which included not more than six cases. Reports from all the literature that we have been able to study indicate that the disease is practically hopeless. However, in 1921, Harbitz was able to collect from all the literature reports of forty cases that were cured. These cases were reported to have been cured by symptomatic treatment; no specific was used in any of them. Kerley reports that he has never seen a recovery of a case of tuberculous meningitis that was proven. However, he states that Archanzelsky of Moscow, reports the

recovery of an eight-year-old girl in whose spinal fluid tubercule bacilli were found in large numbers. He reports having found in the literature fifty cases of recovery from tuberculous meningitis, that he considered to be proven.

The case of meningitis reported in this paper, following septic invasion from middle ear disease, was given mercurochrome intravenously with no apparent effect. Some cases of streptococcic, staphlococcic, pneumococcic, and influenza meningitis have been reported by Beal to have recovered, in which specific antisera for these different organisms were used intravenously and intraspinally.

According to Grinker, syphilitic disease involving the brain or meninges must be looked upon as a serious matter. Although improvement may occur, the outlook is doubtful in all cases past forty years of age. In cases of syphilis of the brain, one-half die of the disease within two years of the onset, one-quarter recover completely, while the remainder can only improve. It might be stated that in syphilis of the meninges (especially of the basilar type, which it most frequently is) intensive, properly administered treatment offers hope for recovery in a fair number, improvement in a few, and no benefit to a large number of cases.

ABSTRACT OF DISCUSSION.

Dr. C. T. Stone, Galveston: The lumbar puncture is very essential in the diagnosis of meningitis. Clinically meningitis, falls into two classes: (1) the acute infectious and (2) the tubercular and luetic. In the former, a high per cent of polys and causative organisms will be found in the spinal fluid; while in the latter, no organisms may be found and a lymphocytosis will be present. I recently saw a case having meningeal symptoms that was treated for tetanus following a nail puncture in the foot. The autopsy showed a septic meningitis of an entirely different origin. Influenzal meningitis is an uncommon condition. To insure a good recovery, repeated lumbar drainage is necessary. Recently, it has been recommended that some foreign serum, such as diphtheria antitoxin, be given intraspinally in cases of tuberculous meningitis, with the idea that the resulting leukocytosis might prove antagonistic to the infection which is always associated with a lymphocytosis. This may offer some hope in these otherwise hopeless cases.

Dr. C. C. Browning, Los Angeles, California: Tuberculous meningitis is very insidious in its onset and is often overlooked for several days. In any tuberculous case, with a persistent headache that is not relieved by the ordinary methods, a meningitis should be suspected. I do not believe that tuberculous meningitis is necessarily a fatal disease. There are many cases on record where an autopsy has shown a complete recovery from a previous tuberculous meningitis. In reference to the author's case of otitis media complicated by meningitis, which recovered upon the administration of salvarsan, I do not believe that this necessarily proves that the patient had lues. The recovery could have been due to the injection of the foreign protein in the blood.

Dr. Glass (closing): The main fact to continually keep in mind, is to do a spinal puncture on any case that shows meningeal symptoms.

A BRIEF RESUME OF THE HISTORY OF RADIOLOGY.

BY

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We are at the threshold of a new epoch in the history of Radiology in Texas. The events of this meeting shall collectively constitute an important landmark in the progress of this specialty; not that all old problems are to be solved, or that new discoveries will be made here, but because this constitutes the initial program of the "Section on Radiology and Physiotherapy," in the State Medical Association of Texas. This section was created, not that a new science had been born, nor a new specialty created, but in order that the medical profession of this State might give public recognition to the scientific work already done. The House of Delegates has given its official stamp of approval upon this already well developed but comparatively new branch of medical practice.

It is a source of satisfaction and pride to the members of the Section that our State is one of the first to adopt us into the family of Sections, following one year behind the American Medical Association in such action and, so far as the writer is aware, further preceded only by the Southern Medical Association and two State Associations, those of Louisiana and California.

The self-complacency of the physical world of thirty years ago was greatly disturbed, when in April, 1895, William Conrad Röentgen discovered the "Unknown Ray" which today rightfully bears his name. It was not until December of the same year, however, that his first article was published, so anxious was he that his work be thorough. Because of this fact it is said of Röentgen that he was "the classical scholar of Oswald's classification 'who works out the problem to the minutest detail and to such a state of completeness that nothing can ever be added to it or subtracted from it.'" His disinclination to publish his work prematurely, sprang from a desire to study the problem in its minutia, allowing the work to slowly ripen to completion. So thoroughly were the characteristics of this radiation described in the first three essays on "A New Kind of Rays" which he called "*X*-rays," that, in spite of

*Chairman's address read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, Austin, May 5, 1925.

the extraordinary activity in physical research which followed, nothing of any importance was discovered for a decade following. His work was not the result of a happy accident, but of many years of exact, painstaking investigation, of a well-trained, highly technical mind, endowed with clearness of vision, accuracy of observation and maturity of judgment—coming as it did at the age of 50 years.

The keen scientist doubtless recognized the potentialities of the new force of nature which he had unveiled, yet consistently refused to take part in any development of technique or to patent any principle or device out of which he might receive material profit. His chief concern was the ultimate constitution of matter and his chief reward the satisfaction of knowing he had made a contribution to science which was destined to render a great service to humanity. Though he had little further active interest in the development of this new agent or force of nature he lived long enough to have experienced the joy of seeing many achievements in both physics and medicine, as a direct result of his work. He died in February, 1923. Thus Röentgen gave to the world one of the most potent factors in modern science and one of the most widely applied in clinical medicine today.

The scientific world, startled by this marvelous announcement, became astir, and began research from many angles and in many quarters of the globe. Electrical engineers, physicists, and physicians combined their efforts; engineers to construct apparatus, physicists to determine the properties of the rays and methods of measurement and control, and physicians to make practical application of them in the diagnosis and treatment of disease.

In the beginning, when only crude apparatus was available, such as the static machine, low vacuum gas tubes, etc., it was not, of course, possible to make more than what now seems a very limited use of Röentgen-rays in practice, such as the detection of foreign bodies, fractures, and dislocations in the smaller parts of the body. As machines were made to deliver higher voltages and tubes capable of carrying such voltages, the field of practical use was rapidly enlarged; and very rapidly the Röentgen-ray passed through three stages: first, it was regarded as a rare curiosity; second, a much coveted luxury, and third, at the present time, an everyday necessity. The development, however, was comparatively slow for the first fifteen years, during which time the Röentgen-ray machine was considered one of the practitioner's instruments used by him on certain rare occasions, such as in the study of certain bone and joint conditions, the detection of foreign bodies, urinary calculi, and the like.

With the development of the interrupterless transformer and very closely behind that of the hot cathode tube, commonly called the Coolidge tube, many new lines of endeavor were opened. It was now possible to make quick film exposures, and fluoroscopic work was made more practical, both of which greatly facilitated the study of the gastro-intestinal tract. It was now possible to duplicate results in a given case and thus a standardization of radiographic technique was begun, which marks the real beginning of the radiological study of pathological conditions in the skeleton and organs. The cystoscope had now come into practical use, and cystoscopy combined with pyelography has revolutionized the study of the urinary system, indeed, radiography apart from cystoscopy and pyelography has only a limited application, but the accuracy and thoroughness of the combination of these two is scarcely surpassed in clinical medicine today.

Thus I might go at length into the history of the development of the radiology of the chest, accessory sinuses, the teeth, and on through the list, but time will not permit. Suffice it to say, the radiologist of today finds himself confronted with the necessity of having at least a fair degree of familiarity with almost every phase and branch of medical practice. He is, of course, primarily a physician, limiting himself to the use of radio-active substances. His viewpoint of his work is fundamentally that of a physician applying and correlating his special knowledge of radiology and his general knowledge of medicine. He must be able to make accurate differentiation of pulmonary tuberculosis, abscess and malignancy; he must assist the surgeon in the differentiation of right upper quadrant conditions and be able to furnish evidence which will distinguish cholecystitis, cholelithiasis, right renal or ureteral calculus, hydronephrosis, or renal tumor. For the gastro-enterologist, he must identify and localize peptic ulcer, carcinoma, and gastro-intestinal stasis, and help him decide as to operability. The urologist will seek his aid in connection with cystoscopy in making a diagnosis of urinary calculi, hydronephroses, tumors, etc. The otologist and rhinologist will ask for information concerning accessory sinus diseases and mastoiditis; the laryngologist will need his assistance in the localization of foreign bodies in the oesophagus, trachea, and bronchi, and his fluoroscopic aid, perhaps, in their removal. The ophthalmologist must depend on him for

localization of foreign bodies in the eye, upon which localization much as to treatment and prognosis may depend. The dentist will often find occasion to consult concerning dental infections, retained roots, incomplete root canal fillings and the extent and depth of alveolar erosion. How often does it occur that the radiological evidence is the sole, or at least the deciding factor in the diagnosis of bone syphilis, tuberculosis, and osteomyelitis; or if a bone tumor is present, whether it is a benign or malignant one and, to a large extent, the type and degree of malignancy!

The dermatologist will demand his services so frequently that it is sometimes difficult to decide which specialty he is practicing; whether the dermatologist should be a radiologist or the radiologist a dermatologist. Indeed, these two overlap in many places.

No man should attempt to treat malignant conditions without a knowledge of their nature, their dangers, the prognosis as to recurrence and metastasis, and a knowledge of the anatomy of the lymph drainage of the involved area. Radiology has such a wide and almost universal use in malignant conditions, that it would seem preposterous to think of any other than the well trained phyysician and specially trained radiologist attempting to use this modality. This phase of radiology alone is so broad that many men are confining their practice to therapy. John G. Clark of Philadelphia has said that any physician attempting to treat cancer without radiation is liable for malpractice.

Thus we see that the clinical radiologist must be a versatile physician, for his responsibilities are heavy and varied, and the demands upon him so exacting. There is scarcely a branch of medical practice he does not touch, or a specialist with whom he does not consult. He aspires to be a consultant and attains this in proportion to the degree with which he masters the various subjects with which he is to deal.

Radiology is a hazardous occupation from at least four standpoints: first, from the very confinement incident to the close quarters in which it is necessary to work, especially if much fluoroscopic work is to be done; second, from exposure to röentgen-rays which is perhaps the greatest hazard from the radiologist's own health standpoint; third, from exposure to high voltage electric currents, both of himself, his assistants and patients; and fourth, the liability he must assume in giving the proper dosage without damage to the skin, or other important tissues in the region exposed.

All this makes a dark picture and is perhaps discouraging to many young professional men who are selecting a specialty to follow, but after all there is scarcely a more pleasant sphere of professional endeavor, a richer field for rendering a real service to the medical profession and to humanity, nor a more fertile soil for scientific and professional development. There is a great demand for trained radiologists in this State at this time, and the members of this Section of the State Association, working in conjunction with the Texas Radiological Society, the Radiological Society of North America, the American Röentgen-ray Society, and the American Radium Society, must get under the responsibility of inducing capable young physicians to select this specialty for their life work, to encourage and train them to the highest degree of proficiency so that the high standards set by our illustrious predecessors and contemporaries in service may be maintained and even elevated, and that the most conscientious and scientific service possible may be rendered the sick and injured of the community. The profession demands it; the laity demand it. Let us not be deceived, nor allow the people to be deceived by the mysticism which enshrouds the minds of some regarding this work and the consequent discredit it has received in some quarters, but let us recognize our own limitations and press on with honest endeavor, applying our service in every possible and practical way.

The proper time for entering this specialty may vary in the career of different individuals according to conditions or personal inclinations; but it is desirable when one begins that he get a proper perspective of the task before him. It is too often the case that the young physician will say, "I am going to some hospital or clinic for a stay of a week or more to specialize in radiology." It would be unthinkable for a man to make such a remark in regard to specializing in surgery, in eye, ear, nose, and throat, in urology, in pediatrics, in obstetrics, or any other line which has any degree of importance attached to it. And the man who would make such a statement is simply ignorant of the magnitude of the undertaking, for radiology, today, as above intimated, is one of the broadest branches of the list. In addition to his usual four years' medical course and an internship, one should not expect to spend less than from two to five years in the intensive study and practice of this special line before he could be considered a finished radiologist, regardless of the amount of general or hospital practice which he may have had.

These remarks are not meant to sound an alarm, but merely to place the proper emphasis as the writer sees it. We are glad to know that the undergraduate and graduate

schools of medicine are trying to standardize this instruction and place this matter on a scientific basis commensurate with its importance in the curriculum.

Let us be grateful for the vantage point which we now hold, for every expression of confidence of our fellow physicians in all branches, and particularly to our State Association officials for the creation of this section. Let it be our earnest desire and effort to maintain the professional dignity and courtesy characteristic of other sections, and at all times show our loyalty to our profession in general and to our specialty in particular.

The program which is to follow bears the names of some of the most distinguished physicians in our State, and of two of the most illustrious radiologists of the nation, Dr. Benjamin H. Orndoff of Chicago, and Dr. Russell D. Carman of Rochester, Minnesota. We have a peculiar pride in presenting all of these to you, and are confident that there will be no disappointments when the program shall have been completed.

SOME PRACTICAL POINTS IN THE DIAGNOSIS AND TREATMENT OF NEURITIS OF THE FIFTH PAIR OF CRANIAL NERVES.*

BY

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The purpose of this paper is to handle the subject of neuritis from a strictly clinical viewpoint, to tell of observations made, of some of the peculiarities that the malady possesses, and of conclusions arrived at from these observations.

The fifth pair of cranial nerves supplies sensation to the entire face, the eyes, nose, maxillae and mandible, sinuses, scalp, outer ear, teeth, mouth, palate and upper part of the throat. It is the most widely distributed, and, by virtue of the fact that it supplies such a vital territory, it is considered the most important of the sensory nerves. Its function is both trophic and sensory. This nerve, as well as others, sometimes becomes diseased and furnishes an excess of sensation in the form of an acute pain, which pain is variously referred to as neuralgia, neuritis and, sometimes as "Tic Douloureux."

Neuritis may be defined as a nerve pain caused by an inflammation of the nerve trunk or the nerve sheath. A condition that is not supposed to be caused by a definite lesion, or to follow a definite local pathology, but is more in the nature of an independent inflammatory process of the nerve trunk, which does not attack the contiguous tissues. Neuralgia is defined as a nerve pain; these pains are of the same general character as those produced by neuritis, but they have a definite seat of pathology as their cause. The cause of neuritis is uncertain and difficult to locate; it may be systemic, or general, or it may be local. Among the general systemic disorders that may be regarded as a causative factor in producing neuritis, may be included any disease that will produce a general lowered resistance or lowering of the vitality of the individual, such as follows colds, lagrippe, influenza, syphilis, or any of the infectious diseases. In fact, any disorder that lowers the general vitality, leaving the individual in a lowered state of physical resistance, makes him less resistive to diseases, and he, therefore, become a possible prey to neuritis.

Among the local contributing cause of neuritis, there is none quite so prevalent as that of mouth and tooth pathology. (The general term, mouth and tooth pathology, is used to cover every condition in the mouth that varies from the normal, any one of which may be responsible.) The one single local causative factor that is most often responsible for neuritis is that of impacted and unerupted teeth. The pain originating in a diseased tooth, or teeth, is most generally a form or neuralgia, or a referred pain which is eliminated by removing the local pathology. The pains caused by impacted or unerupted teeth are more nearly akin to true neuritis. Here you also have a definite seat of irritation, but it is associated with no definite pathology, the pain being the result of a nerve impingement, or irritation of the nerve with no local inflammation.

It is my firm conviction that impacted teeth are responsible for many cases of physical pain, suffering and anguish, that are diagnosed, regarded and treated as some form of general disorder, and believed to have no local significance whatsoever, when, if the facts could be known, the real cause would be found in impacted teeth. They have a very decided effect on the general nervous system, and are directly responsible for the condition of some of our patients, usually referred to as nervousness. They are responsible for many cases of neuritis, both as to the territory that is supplied by the fifth pair of nerves and to the most remote extremity as well. They act more by the unbalancing of the nervous system than as a local irritant. No physical examination should be regarded as complete that has not taken cognizance of impacted teeth.

The symptoms of neuritis, or tic doulou-

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 7, 1925.

reux, are manifested by keen, sharp, shooting pains of a spasmodic character, lasting from a few seconds to a minute or two, then subsiding in severity. But they may be reexcited by a slight movement of the muscles supplying the particular territory; in severe cases, the mere touching of the affected surface with the finger or a wisp of cotton will excite the paroxysms. During the attack, the patient's face will have a drawn, pinched expression, deeply flushed; the secretions from the nose and eyes are very copious, accompanied by a spasmodic contraction of the facial muscles. The patient will give evidence of extreme pain and suffering during the paroxysms. These attacks vary in frequency, from one every few minutes to indefinite periods. True neuritis is very easily confused with neuralgia, or referred pains, so it is advisable to arrive at a diagnosis by first eliminating every source of irritation along the tract of the fifth pair of nerves. Transillumination and *x*-ray examinations are indispensable for ascertaining the presence of impacted, infected and non-erupted teeth and infected and engorged sinuses. Any of these conditions, if found, should be removed. A definite diagnosis in this, as in any other pathology, is the first essential to successful treatment. Hence every precaution should be used to guard against the mistake of trying to get results in treating cases of referred pain for neuritis; for while the pain in these two conditions is very similar, the treatment is quite different.

In order to fully understand the principle of referred pain, it will not be amiss to study some of the peculiarities and principles involved in pain being referred from one locality to another. Dr. Arthur E. Smith used an illustration that impressed the author most forcibly, and that gives a concise conception of the "why" and "how" of referred pain. He likens the sensory nerve system to a telephone system, the brain representing the telephone central office. Like the telephone, the nerve function is only at the peripheral or surface terminal; just as the function of the telephone is at the receiver, the voice of your conversant being heard in the receiver but nowhere along the course of the wire, so sensation is felt at the surface or periphreal ending and is not manifest anywhere along the nerve trunk. A short-circuit created along the 'phone wire will ring the bell at the receiving end, which is the 'phone, so will a lesion along the nerve trunk produce a pain at the surface terminal. There are innumerable terminals connected with each nerve trunk, and any one of them may be the ones sending out the warning in the form of pain that something is wrong along the line. A lineman working on the wire will ring the 'phone bell, also an irritation along a nerve trunk will produce a pain in some remote terminal.

It, therefore, can be seen that pain caused by a lesion—or short-circuit, if you please—anywhere along its course, may produce pain felt in a different locality. This type of pain is treated simply by removing the cause, which is the lesion. This pain may be of a spasmodic nature, just like a neuritic pain, but can be excited only by stimulating or irritating the lesion and does not respond to surface irritation, as is the case in neuritis. One must not be in a hurry in arriving at a diagnosis, but must use time, pains and precaution to eliminate all chance of referred pain. When once neuritis is definitely diagnosed, the question of its cause must be decided. My observation has been that most of these unfortunate persons have suffered a general physical decline prior to the onset of the neuritis; and that many of them will clear up after a course of treatment that will tend to build up their general bodily resistance. Neuritis cannot be classed as strictly a disease within itself, but is really a local manifestation of some general physical decline or disturbance. Hence a complete physical examination is necessary in ferreting out the cause of the trouble.

The ideal routine for this purpose is found in what is now referred to as "Group Medicine," where the various specialties are represented by experts in each department; a complete blood and urine examination, a Wassermann, an *x*-ray and an eye, ear, nose and throat examination, and last but not least from the standpoint of importance, the dental examination. After all these reports are at hand and no definite pathology is located and no specific reason for the presence of this excruciating pain is found, and after all attempts to regain the original physical vigor, through the medium of medicinal treatment have been made; then as a case of last resort—then, and then only—may the injection of pure grain alcohol be resorted to. The use of this remedy requires a specific knowledge of the anatomy of the head, including the distribution and function of the twelve cranial nerves, with an accurate understanding of the distribution of the fifth pair of cranial nerves. A knowledge of the sensory nerve supply is essential in order to enable the operator to properly inject the desired nerve; a knowledge of the motor nerve distribution is essential to enable the operator to avoid them, for it must be borne in mind that an alcohol injection will paralyze a motor nerve as well as a sensory one. The crux of this treatment is the ability of the operator to place the alcohol in contact with the nerve

trunk. Just as when shooting at the bull's-eye, if you hit the target, you ring the bell, so in this treatment, if the nerve is hit, the patient is relieved. If in using the alcohol route for neuritis, you are not successful, just condemn the technique and not the method, for it will relieve the patient if the technique is good, just as surely as you ring the bell if the target is hit.

After neuritis has been diagnosed and the alcohol treatment has been decided upon, the next problem is to determine what division is involved, whether it be the first, second or third division. After it is definitely known which division is involved, then one must ascertain which branch of the division is affected. This opinion is arrived at through the operator's knowledge of the nerve supply, but remember that as yet one has only an opinion and not definite knowledge, and that this opinion should be checked up and proven by blocking the suspected branch or division with a 2 per cent solution of novocain injected as per the standard principle of block anesthesia. Should this be the affected trunk, the relief from the paroxysms of pain will be immediate; should the pains continue after anesthesia has been produced, then it is reasonable to suspect that the guess was wrong and that it is another branch that is involved. In that case, the logical thing to do is to test out the next division or branch, and so on until the affected nerve is anesthetized. When this has been accomplished, there will be no doubt in either the operator's or the patient's mind, for both will know beyond question when complete relief has been experienced. This procedure is especially necessary in determining the branch or division involved when the pain is in those certain localities which might be called borderline, where it is not clear just which branch or division supplies the area where the pain is located. For instance, if the pain is located in the angle of the mandible near the junction of the body and ramus, it will be impossible to say definitely, without testing it out, whether to block the mandibular, lingual or long buccal branch of the third division; for in this territory the function of these three are very closely associated. Then too, occasionally, it will be necessary to determine which division the pain comes from, as is the case when the pain is located in the temple just anterior to the ear; this also should be referred to as a borderline case, from the standpoint of a diagnosis. In cases like this, blocking would have to be resorted to, to be able to say definitely whether it be the second or third division that is affected: It, therefore, will be seen that novocain nerve blocking has a very decided and definite value in making a diagnosis.

Then, when the diagnosis is once arrived at, the field of injection being already anesthetized, it is a very simple matter to repeat the technique that produced the anesthesia, with an injection of the alcohol, and do so with a total absence of pain. Alcohol should never, under any condition, be injected without first using an anesthetic. Some operators, however, contend that alcohol should be used without an anesthetic on the basis that they prefer to use the pain as a diagnostic adjunct; whereas, my plan uses the absence of pain as a diagnostic sign. These poor unfortunates have had their share of suffering, and should not be punished further during the course of treatment. The injection of alcohol into unanesthetized tissue is about as painful as the actual cautery would be, and should not be considered without an anesthetic. Pure grain alcohol in doses ranging from ½ to 2 cc. is used; some authorities advise the use of from a 60 to 90 per cent solution, but their technique does not contemplate the use of a local anesthetic. Where the alcohol injection has been preceded by from 2 to 4 cc. of a solution of novocain, the tissue in which the alcohol is to be injected has already been infiltrated, so that the alcohol is immediately diluted within the seat of injection. If a 60 per cent solution be used under these conditions it would, of course, be further diluted within the tissue, and probably to an extent that the desired results might be defeated.

When alcohol is injected into vital tissue, a coagulation of all connective tissue takes place, which produces an eschar, or in a sense burns the tissue and leaves within the field of injection a mass of cooked tissue, just as when the actual cautery has been used. The intent of this is to include the nerve within the field of injection, and sever it by the burn, which has the same effect on the nerve as if it had been cut by the knife or actual cautery. When once severed it ceases to transmit nerve impulses, which include both pain and sensation. It is a well known fact that nerve tissue will regenerate after having been destroyed. After a nerve has been severed by an alcohol injection, it will regenerate just as nerves regenerate after being cut by the knife or by an accident; so this regeneration is to be expected. The length of time that will be required for a reunion of the several ends depends upon the size of the eschar produced by the injection and the consequent length of the destroyed trunk. Returning function will be noticed by a gradual return of sensation; and with the return of nerve function, a return of the old pain may

be expected. However, the big majority of these persons after being relieved of their suffering will take a new interest in life, and will begin to pick up in bodily weight and vigor, and by the time the nerve function has returned, the old cause of the neuritis will have been thrown off and permanent relief secured.

But there will be some recurrences; a small percentage of your cases will return with the same pain in the same locality, and will require subsequent injection. These recurrences will usually take place within a period of time ranging from 3 to 18 months; if the patient goes more than 18 months without a return of pain, it will be reasonably safe to assume that he has obtained permanent relief. Should a second injection be necessary, it should be remembered that when the first injection was made it left a cicatrix, within which the nerve endings reunited. If a second injection is necessary, it will in all probability be a disappointment if the same point of injection that was used in the first instance is selected, for this time one will be attempting to inject the alcohol into a scar which is so dense that it protects the nerve trunk from contact with the fluid. If possible, try to reach the nerve by injecting in a different place the second time. In making these injections, one should go no deeper with the injection and involve no more nerve tissue than is necessary to give relief; normal nerve function is essential to normal tissue function and should be conserved as much as possible. Occasionally, a case will return with a recurrence of suffering, but by testing out, it will be found that it is from another nerve entirely from the one first affected. Logically, this will call for another injection for the newly affected nerve. I have had a number of cases of this progressive type of neuritis which continued affecting branch after branch and division after division, until all three divisions of the fifth pair of nerves eventually became involved, had to be injected. A case came under our observation that had its origin in the second division, and spread very gradually until all three divisions were involved, finally resulting in a general neuritis. After months of intense suffering, the case had a fatal termination. This case was observed before the advent of the alcohol treatment and is only mentioned here to emphasize the fact that neuritis is really a serious affection, and that we are justified in using any and every means that we have for its alleviation.

In advanced cases, where repeated alcohol injections have been used, this treatment sometimes ceases to be effective. Since after each injection a mass of scar tissue is left, after repeated injections a point is eventually reached, where one is no longer able to get the alcohol into contact with the nerve. In such cases, it is still possible to secure relief by injecting alcohol directly into the gasserian ganglion, or by evulsion of the posterior root through a surgical procedure. This latter is an extreme measure and is only indicated in extreme cases. Either the ganglion injection or the surgical evulsion will afford relief from the pain, but either will also leave in its wake a general sensory paralysis of the affected side. This paralysis is usually followed by a continuous or chronic inflammation of the eye. The eye, when anesthetized, is unable to determine the presence of a foreign substance which in the normal eye will stimulate an excessive flow of lacrimal secretion and wash away the invader. Following such operations, the eyes are deprived of their sense of feeling and will eventually become filled with particles of dust, and other foreign substances which irritate the eyes and produce a chronic inflammation. Another difficulty is that the patient will bite the cheek during chewing and never know it until a chronic ulceration shows up. These are just a few of the reasons why the ganglion should not be disturbed if relief can be had through a less heroic procedure.

In the past, there has been no standard line of treatment for neuritis, that could be relied upon with any degree of certainty. The plan outlined above affords a line of treatment that is reliable and dependable. It can be used with a degree of certainty and safety, that places it well within the category of standard treatments. Its merits will most certainly justify its use.

ABSTRACT OF DISCUSSION.

Dr. C. W. Flynn, Dallas: I am glad to see this subject discussed from the standpoint of the dentist, because many of these cases first consult the dentist. The surgeon sees them, ordinarily, after the extraction of teeth, sinus operations, or nerve resections, etc., have been carried out without success. The patient frequently is a drug addict and frankly says that only morphin alleviates the pain. This should immediately cinch the diagnosis of trifacial neuralgia, if the patient's description of the pain is characteristic, that is, if the pain is lancinating and severe, without a physical sense of inflammation about the face, and follows closely the terminal branches of the fifth nerve. All foci of infection should be removed. However, the pain must be controlled, first, by alcohol injections, and secondly, by the evulsion of the sensory root of the gasserian ganglion. This latter, however, is not carried out until the alcohol injections are no longer effectual. I use 95 per cent alcohol without anesthesia of any sort and inject the superficial nerves, if involved; or I inject the deep nerves, as the injection leaves a scar if the nerves are tender, up to the base of the skull.

We can reasonably expect complete relief of pain for a period of months or years. When the longer branch is involved, the deep injection must always

be done. There are few complications, if any, and the operation is safe. This, after all, is the most conservative method of handling this dreaded disease.

Dr. Murphy (closing): There were two points I wanted to stress in my paper: First, the differential diagnosis between true neuritis and referred pain caused by a local site of pathology; second, the use of novocaine in making the diagnosis, as to locating definitely which branch or division was involved.

I have no criticism as to the use of alcohol without an anesthetic, but suppose one made a wrong injection and got no relief, he would have thereby destroyed nerve tissue that should not have been destroyed. Novocaine anesthesia eliminates the question of guess; without it, you only estimate where you will strike the nerve, but novocaine definitely tells when you have placed the injection in the right spot.

ZINC IONIZATION AS AN ADVANCE IN THE TREATMENT OF OTITIS MEDIA.*

BY

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It has been twenty-five years since Leduc[1] first published his researches on the effect of zinc ions on diseased tissues. Since these record-making discoveries, a number of investigators have applied the ionization method to treatment of suppuration in various parts of the body, but only comparatively recently has it found a place in the treatment of middle ear suppuration, and particularly on the Continent. In this country, other elements have been employed, especially copper, magnesium and iodine, all of which have come to be regarded as inefficient for reasons to be explained shortly.

It was in 1920 that serious consideration was given to this method for treating suppurative ear diseases and among the pioneers are Friel[2], Wells[3], Malherbe[4] and Barajas[5]. These investigators used various methods, many of which have fallen into disuse; especially is this true of the metal or other element used in the ionization. The original researches of Leduc in 1900 were made on a number of elements, but he assigns to zinc the position of "an antiseptic of the highest rank." For some time use was made of copper as the antiseptic ion, but it has many disadvantages not found in zinc. Iron could not be used because it stains indelibly the tissue to which it is applied. Silver, while occupying a position superior to copper, cannot be used because of its well known behavior on coming into contact with organic reducing substances. For this reason its action is entirely superficial. The action of magnesium is decidedly destructive to the tissues, a disadvantage which eliminates it from consideration as an adjunct to middle ear therapy.

Our attention was first called to the zinc ionization method of treatment of chronic otorrhea by Dr. W. Salisbury Sharpe in London in April, 1921, he having used it in a number of obstinate cases, some of which yielded to ionization after having resisted other methods.

Before going into the details of the method, we will consider the particular conditions to which it is applicable. We will classify otorrhea into those cases which show (1) tympanic sepsis alone; (2) tympanic sepsis plus attic or mastoid sepsis; (3) tympanic sepsis plus inflammation of the external auditory meatus or of the eustachian tube, with or without septic teeth, tonsils, adenoids or sinus infection; (4) tympanic sepsis plus polypi, granulations or areas of caries, and (5) tympanic sepsis plus a combination of two or more of the foregoing conditions.

In cases of tympanic sepsis pure and simple, treatment by ionization alone is sufficient and especially so if the perforation of the drum membrane is large enough to allow the introduction of a zinc sulfate solution and its distribution in sufficient amounts. Cases coming under the third head must have additional treatment, such as the removal of diseased teeth, tonsils and adenoids to complete the cure and prevent recurrence. Those cases in which polypi are present are amenable to ionization after the polypi are cauterized. Cases where there is attic or mastoid suppuration are nearly always unsuited for treatment by ionization alone, because it is not usually possible for the fluid to gain access to the whole of the infected areas.

The technic of the treatment is very simple. The ear must be very well cleansed and *gently* syringed with a warmed solution of zinc sulfate containing one grain of the salt to the ounce of distilled water, the patient lying with the infected ear up. The auditory meatus is filled with the zinc sulfate solution, a Siegle otoscope inserted, and gentle aspiration done to remove any air bubbles which may be in the tympanum.

It is necessary that one be provided with a *direct* current, preferably from a generator

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1. Leduc, Stephane: Jour. de Physio-therapie, September 15, 1904; "Electric Ions and Their Use in Medicine," London, 1908.
2. Friel, A. R.: Am. J. Electrother. and Radiol., Vol. xxxix, p. 414, October, 1921; Dublin J. M. Sc., Vol. iv, p. 641, February, 1922; Rev. de Laryngol., etc., Paris, Vol. iii, p. 89, February 15, 1922; Lancet, London, Vol. cciv, p. 1305, June 30, 1923; J. Laryngol. and Otol., Ed'nburgh, Vol. xl, p. 129, February, 1925.
3. Wells, Arthur G.: Lancet, London, Vol., ii, p. 1268, December 17, 1921; J. Laryngol. and Otol, Edinburgh, Vol. xl, p. 129, February, 1925.
4. Malherbe: Arch. d'Elect. Med., July 10, 1907.
5. Barajas y de Vilches, Jose M.: Siglo Medico, Madrid, Vol. lxxi, p. 432, May 5, 1923; Rev. espan. de Laringol., etc., Madrid, Vol. xiv, p. 116, (May-June, 1923).

capable of delivering at least ten milliamperes of current when connected with the patient. To secure best results it is necessary to have a generator which is provided with at least forty-five segments in the commutator and revolves at a speed of 1,800 r. p. m. This gives a current having 2,800 interruptions per second, which produces a sedative effect on the nervous system of the patient, unlike the results from a continuous current obtained from storage batteries or dry cells.

The positive electrode, which is a short piece of zinc wire, is passed through a bit of glass tubing provided with a rubber tip to make a tight fit in the external auditory meatus, which is filled with the warmed solution of zinc sulfate. The negative pole is attached to a sponge moistened with a sodium chloride solution and the sponge is held in the hand opposite the side being treated. A current of three milliamperes is slowly turned on and allowed to flow for ten or fifteen minutes and then gradually turned off. The external ear canal is not dried.

The probable condition which exists in the ear during ionization may be outlined as follows: When zinc sulfate is dissolved in water it forms ions of zinc and of the sulfate radical. The zinc ions carry two positive charges of electricity and the sulfate ions carry two negative charges. In the tissues, and in pus particularly, sodium chloride is present in solution. It was Tousey[6] who likened the animal body to "a spongy mass filled with a solution of sodium chloride." This sodium chloride is also ionized, that is, its solution in water contains sodium ions bearing one positive charge and chlorine ions bearing one negative charge of electricity.

It is an established law in electrolysis that unlike signs attract, that is, ions bearing a negative charge (cathions) are attracted to the positive pole (anode), and the positively charged ions (anions) pass to the negative pole (cathode). In the condition that is present in the ionization with which we are dealing, the zinc and sodium ions migrate in the direction of the negative pole which is the sponge connected with the negative pole of the generator and held in the hand of the patient on the side opposite that of the ear being treated. The free sulfate and chlorine ions go toward the anode, which is the zinc wire to which the positive pole is attached.

Chlorine in its ionized state, such as is produced in electrolysis of this sort, is very reactive, more so than the sulfate ions. Hence it combines with the zinc ions to form zinc chloride in the tissues nearest the source of zinc. The sulfate ion which is liberated at the anode is now free to combine with the zinc wire to form more zinc sulfate, always in the same proportion as the amount of zinc used in forming zinc chloride.

When a foreign ion is diffused into the tissues it does not need to reach the opposite pole on the other side of the body to give up its charge and be reduced to its atomic or molecular activities. It is reduced by the opposite ion as soon as it encounters it in the tissues or body fluids. Since the foreign ion is thus reduced by union with an opposite ion of the tissue substance or fluid as soon as diffused into a part, it follows that a local action in a part is obtained, not of a free ion, but of a *chemical substance,* and that the effect must vary and be dependent on the action of the chemical thus created where it is wanted. The benefit derived from this treatment is evidently due to the formation in the tissues of an astringent and bactericidal substance, zinc chloride, which would not otherwise reach the foci of infection on account of the very slow diffusion of most metallic salts through tissue substance.

It has been found by Valentine[7] that streptococcus hemolyticus is probably the most important etiological organism in the majority of acute middle-ear infections. It is rarely found in pure culture, but usually in association with diplococcus pneumoniae. The bacteria which accompany secondary infection consist principally of Bacillus pyocyaneus, Bacillus proteus, Staphylococcus pyogenes, Streptococcus mucosus and the diphtheroids. Several investigators[8] have found fusiform bacilli and spirochetes in cases of chronic otitis media, especially in those purulent exudates which have an intensely fetid odor. In most respects, the conclusions of Valentine are in agreement with those of other investigators of the bacteriology of otitis media[9]. It has been observed that Streptococcus pyogenes is killed in a few minutes by a 1:1000 solution of zinc chloride[10], and that nucleoproteins and albumin, two proteins which are essential to bacterial

6. Tousey, S.: "Medical Electricity, Röentgen Rays and Radium," p. 405, 1921.

7. Valentine: J. Infect. Dis., Vol. xxxv, p. 117, August, 1924.

8. Busacca, Gino: Arch. ital. d. oto., etc., Naples, Vol. xxxv, p. 414, October, 1923. Waldapfel, Richard: Monatschr. f. Ohrenhlk., etc., Vienna, Vol. lvii, p. 870, October, 1923. Piot, I., and Pearlman, S. J.: J. Infect. Dis., Vol. xxxiii, p. 139, August, 1923.

9. Pirodda, A.: Boll. d. Mal. d. Orecchio, d. gola e d. naso, Florence, Vol. xl, p. 37, April-May, 1922. Evers, Hans: Arch. f. Ohren-, Nasen- u. Kehlkopfhlk., Leipsic, Vol. cx, p. 169, November, 1922. Plaut, C. H.: Arch. f. Ohren., Nasen- u Kehlkopfhlk., Leipsic, Vol. cx, p. 163, November, 1922. Lion, G., and Levy-Bruhl, M.: Arch. internat. de Laryngol., etc., Paris, Vol. iii, p. 637, June, 1924.

10. Park and Williams: "Pathogenic Microorganisms," p. 387, Philadelphia, 1920.

cytoplasm, are precipitated by the zinc ion, is shown by a number of experiments[11].

In the condition with which we are dealing, the zinc ion in its attempt to reach the negative pole is forced into the pus and tissues. There it meets the chlorine ion traveling in the opposite direction and because of their great affinity zinc chloride is formed. On account of its ability to coagulate proteins by forming insoluble compounds, the zinc chloride is removed from the field of action and is not subject to further electrolysis. It is this ability of zinc chloride to form insoluble compounds with essential proteins of the bacterial cytoplasm that is responsible for the rapid cessation of suppuration from the diseased area. The fact that these foreign ions are most intimately diffused into the substance of the cells themselves, is a most important fact in contrast to grosser local diffusion of dissolved substances by mechanical injection, when only intercellular diffusion is possible. In other words, ionization produces intracellular diffusion at once, while mechanical insertion of ions into the tissues must be intercellular at first, becoming intracellular only by the aid of subsequent osmotic interchanges.

It is noteworthy that the adjacent tissues are not damaged by the process. The absorbent vessels and lymph spaces in healthy surrounding tissue are not opened by the electrical intervention but are sealed by it, the edges remaining sealed by the coagulant action of the ionization until this is replaced by the sealing effect of tissue repair. The result is that the possibility of accidental reimplantation of undestroyed or unremoved organisms is eliminated. In the ionization method the infecting organisms are destroyed *in situ,* rather than removed while living, with a risk in the latter case of reimplantation in the tissues.[12]

That zinc chloride is actually formed during such electrolysis has been demonstrated by a simple laboratory experiment in which a zinc anode is placed in a solution of sodium chloride and the current passed through from the cathode. Zinc was identified in the solution, its only probable combination in this experiment being the chloride, as other possible combinations of zinc in this condition would be insoluble ones and would precipitate out. By the electrometric method of calculation it was shown that 0.13 grain of zinc chloride is formed by passing a current of three milliamperes for fifteen minutes. Although the quantity does not seem large, it is large compared to the amount of that substance that would reach an infected area by simple diffusion.

As has already been stated, other elements have from time to time been used in ionization of suppurative areas. Of these, copper was adhered to for some time. It is open to the objection that its effects on the proteins are not as complete or as agreeable as those produced by the zinc ions. When copper is used as the ionizing metal there are apt to be more frequent recurrences of the discharge than when zinc is used. A solution of sodium iodide or Churchill's tincture of iodine has been the solution employed by some aurists for ionizing the tympanum, but the effect of the iodine is decidely irritating and it does not leave the tissues in as favorable condition for subsequent repair as when zinc is used. The oxidizing power of free iodine and iodides is of the fifth and sixth orders, respectively, hence their efficiency is not comparable with highly ionized metals for use in sterilization of the tympanum. Both zinc and copper have relatively low atomic weights (65 and 63, respectively). It is because of their relatively small size that these atoms of zinc and copper can force their way between the protein molecules, which are quite large. It is for the same reason that such other elements as silver (atomic weight 107), iodine (atomic weight 126) and mercury (atomic weight 200) cannot penetrate deep enough into the tissues to produce a satisfactory effect, as their penetrating ability is in indirect ratio to the size of the atom as represented by the atomic weight.[13]

In our experience with this method, we have noticed complete cessation of discharge after one treatment and the ear dry and free from inflammation within a few days. If there is a failure in what seems to be a suitable case for ionization and the discharge continues after the first treatment, it is probably due to the perforation in the ear drum being too small to permit the zinc sulfate solution to enter, and at the next treatment the solution should be injected through the hole with a small syringe, the procedure then being as before.

Wells,[14] and others, have suggested the use of zinc salicylate by first reversing the direction of the current in order to secure the sedative effects of the salicyl ion before ionizing with zinc, in those cases in which the area is sore and painful. In our experience, we find this quite an unnecessary procedure as the zinc ionization is usually suf-

11. Hawk, P. H.: "Physiological Chemistry, p. 103, Philadelphia, 1916.
12. Massey, G. B.: "Practical Electrotherapeutics and Diathermy," p. 48, New York, 1924.
13. Cornell, T. C.: The Electron, Rochester, February, 1925.
14. Wells, Arthur G.: J. Laryngol. and Otol., Edinburgh, Vol. xl, p. 129, February, 1925.

ficient to eliminate any pain connected with these cases.

Barajas, Friel, Wells, and others, advocate the use of glycerin as a constituent of the ionizing solution. In employing a solution containing only zinc sulfate and water we have considered the following facts: It has been shown by Scheuerlen and Spiro[15], Kronig and Paul[16], and others, that in the case of salts there is a distinct and demonstrable relationship between the disinfecting power of these substances and their ionization in solution. According to those investigators, the bactericidal action of halogen combinations with metals is in direct proportion to the degree of ionization. As the ionization of a salt in solution is in direct proportion to the dielectric constant of the solvent[17], this factor must come into consideration. The dielectric constant of glycerin is 56.2 and that of water is 81.7[18]. Thus it is seen that the ionization of a salt in a solution of glycerin would not be as great as in one consisting of pure water as the solvent, for one of the laws of ionization states that the ionization of a salt in a mixture of two liquids is the same as if it were dissolved in each of the liquids separately (Kraus). In addition, the solution containing glycerin appears to be unstable, resulting in the formation of a white flocculent precipitate on long standing.

Fraser[19] has commented that the method is not free from pain in many cases and that it is especially disagreeable to children. We cannot confirm his statement from our observations; and Friel remarks that children occasionally fall asleep during the treatment. Watson-Williams[20] states that a current of two milliamperes produces unpleasant effects even in adults. His objection is not borne out by the majority of workers in this method of treatment, and our observation is similar to that of Friel in that the patient occasionally falls asleep during the treatment. Watson-Williams finds that, in his experience, the use of zinc ionization over a period of one year did not give results justifying its continuance. He further states that he used a current of two milliamperes. It is to be noted that other otologists using this method never employ less than three milliamperes and frequently more and report an average of 92 per cent of cures. As has been noted already, the source of the current is an important factor in preventing unpleasant effects from the treatment.

Malherbe[4] has treated tubal catarrh by introducing an electrode into the eustachian tube. With the technic employed in our practice we find this quite unnecessary, as the zinc ions readily pass down the tube. That this is a fact is indicated by the statement of the patient that he can taste the zinc the moment the current is turned on. The extent to which we have found this method successful in the treatment of otorrhea is shown by the following report of cases:

CASE REPORTS.

ACUTE SUPPURATIVE OTITIS MEDIA.

Case No. 1.—R. A., aged 11 years, had one of his tympanic membranes incised. Drained three days and on fourth day was ionized. On the eighth day following, the ear was dry and has remained dry one month.

Case No. 2.—M. L., aged 18 years, received one ionization, which dried an ear that had been draining for seven days.

Case No. 3.—G. L. N., aged 30 years, had her ear-drum incised, and the ear drained for three days. There was every symptom of acute mastoiditis. The first ionization disposed of the edema; the second relieved the pain, and the fourth ionization brought about a marked improvement. The ear-drum was healing after the fifth ionization and the drainage was very slight.

Case No. 4.—Miss L. S., aged 18 years, when was first seen, the ear had been draining eight days, and was very sensitive, with edema over mastoid. She had acute tonsillitis and as soon as possible the tonsils were removed. Immediately following the tonsillectomy she had one ionization. One week later the ear was dry and has remained so to date.

Case No. 5.—G. P., aged 12 years, had otitis, the ear-drum was incised and the ear drained two days. He had one ionization, and five days later the ear was dry and has remained so to date.

CHRONIC SUPPURATIVE OTITIS MEDIA.

Case No. 6.—O. A., aged 15 years, had had a bilateral drainage for several years. Two ionizations were given, the ears becoming dry after four days; however, they did not remain dry. Four more ionizations were given and when seen several weeks later the ears were dry. The patient did not return.

Case No. 7.—M. C., aged 6 years, had chronic suppurative otitis media following scarlet fever. The infection was unilateral and there was a large perforation of the drum. The patient has been treated by ionization at intervals of ten days since September, 1922. The infection did not respond readily to the treatment, but in December, 1924, the ear was dry. In January, 1925, the drainage had resumed and the patient is still under treatment.

Case No. 8.—Mrs. W. F. C., aged 43 years, had had chronic otorrhea for about twenty years. Following two ionizations, the ear was dry and continues to be dry after two years.

Case No. 9.—D. C., aged 28 years, had chronic suppurative otitis media, left. After one ionization the ear was dry and hearing much improved. The ear has remained dry for two years.

Case No. 10—Mrs. G. C., aged 37 years, had pul-

15. Scheuerlen & Spiro: Munch. Med. Wochenschr, Vol. xliv, p. 1897.
16. Kronig & Paul: Zeit. f. Hyg., Vol. xxv, p. 1897.
17. Kraus, Chas. A.: "The Properties of Electrically Conducting Systems," p. 318, New York, 1922.
18. Smithsonian Physical Tables, Smithsonian Miscellaneous Publications, Vol. lxxi, No. 1, p. 358, Washington, 1921.
19. Fraser, J. S.: J. Laryngol. and Otol., Edinburgh, Vol. xl, p. 129, February, 1925.
20. Watson-Williams, E.: J. Laryngol. and Otol., Edinburgh, Vol. xl, p. 129, February, 1925.

monary tuberculous and a chronic suppurative otitis media of long standing. There was a very large perforation in the tympanic membrane. The patient had only one ionization. She was very indifferent to the treatment, and complained of tinnitus aurium and nervousness. She did not return for further treatment and the ear was draining when last seen.

Case No. 11.—J. A. D., aged 34 years, had an old, chronic suppurative otitis media with granulation. The ear was dry after third ionization, but the patient went in swimming and reinfected the ear. The patient then had five ionization. He had an earache a month later with a cold, and had two more ionizations. The ear was dry when seen last, a month afterward, and the perforation much smaller.

Case No. 12.—W. L. F., aged 38 years, had earache and a draining ear, following tonsillectomy. Two ionizations resulted in a dry ear, with no drainage since.

Case 13.—R. F., aged 28 years, had an ear that had been draining for many years. The ear has remained dry to date, two years after two ionizations were given.

Case No. 14.—A. A. H., aged 9 years, had a bilateral chronic suppurative otitis media with deafness. After two ionizations the left ear was dry and the perforation closed. After three ionizations in the right ear a slight drainage was noticed when seen a month later, and the drum membrane was almost well. A decided improvement in hearing had resulted.

Case No. 15.—B. A. H., aged 28 years, had a perforation in the tympanic membrane due to an explosion and chronic otorrhea after six weeks. After two ionizations the ear remained dry for more than a year. The drainage returned last July, after swimming. He had three more ionizations and the ear was dry.

Case No. 16—Mrs. V. A. K., aged 34 years, had had bilateral suppurative otitis media for 32 years. After two ionizations both ears were dry, and her hearing decidedly improved. She returned ten days later and ears had remained dry.

Case No. 17.—Miss C. R., aged 34 years, had a chronic discharge for 28 years, which had a very foul odor. The tympanic membrane was gone. After eight ionizations the ear was much improved. The patient was not seen again for four months when she returned for one ionization and two days later the ear was dry. Four months later, the patient returned with a serous discharge; she received one ionization and when last seen the ear was dry.

Case No. 18.—Miss L. S., aged 24 years, had a bilateral suppurative otitis media of long standing and also deafness. After bilateral ionization the ears became dry, and after three ionizations within three months, both ears were dry and hearing much improved. They have remained dry for one year.

Case No. 19.—G. L. W., aged 43 years, had had chronic suppurative otitis media since childhood. The discharge had a fetid odor. Many zinc ionizations had no effect. *X*-ray examination showed a small fistula in the upper part of the mastoid. Symptoms of brain abscess were evident and a radical mastoidectomy was advised. He was operated by Fraser in Edinburgh on October 9, 1924. The operation with skin graft was very successful.

Case No. 20.—J. M. W., aged 61 years, had had chronic otorrhea for sixty years. After three ionizations the ear was dry. The final treatment was a sclerolytic dose of *x*-ray. Six months later the ear was reported to be dry and hearing better than in many years.

Case No 21.—B. W., aged 26 years, had had suppurative otitis media since childhood. About two-thirds of the tympanic membrane was gone and after three ionizations the ear was dry. There is much pathology in the nose and throat, and the ear will probably drain again.

Case No. 22.—Mrs. G. W., aged 38 years, had chronic suppurative otitis media. After being treated with wicks for four years, she had one full dose ionization. She returned one year later with granulations and had one ionization. Fifteen months later, the patient returned and an *x*-ray examination of the head did not show the entire mastoid to be infected. She had another ionization and the ear was dry when seen three days later and has remained so nine months.

In closing, we wish to emphasize that zinc ionization is not a remedy for chronic otorrhea, but is a remedy for sepsis, and as sepsis is frequently the cause of chronicity, zinc ionization will usually result in complete cessation of the discharge in such cases. Furthermore, zinc ionization is not a guarantee against recurrence, but recurrence is decidedly uncommon.

ABSTRACT OF DISCUSSION.

Dr. Palmer M. Archer, Houston: I heard Dr. Warwick's paper on this subject two years ago, and became so interested in the matter that I purchased a Victor machine and secured his technique. So far, I have treated only 28 cases; it is difficult to draw any very accurate conclusions from so limited an experience. While I am sure that in this method we have a very useful adjunct to our armamentarium for the treatment of running ears, I hardly believe that it has the curative value claimed by the essayists. It may be that I have not been expert enough in the selection of my cases, for I have only secured satisfactory results in only five instances. Those cases which show extensive loss of drum membrane, those having disease of the eustachian tube, or those in which much fibrosis has occurred, have all failed to respond to ionization at my hands. I have secured my best results in the treatment of subacute cases; ears that persist in draining mucopurulent material for five or six weeks in spite of good openings in the drum and no evident pathology in the nose and throat. Tolerance to the treatment varies greatly; many complain bitterly of nausea and dizziness, although this can be influenced in a measure by the most gradual control of the current. Children are hard to treat, even those old enough to reason with; in no instance have I had them "fall asleep." While my discussion may seem to be pessimistic, I would have you know that I am far from being discouraged enough to discard the method. With more experience, I hope that my results will improve so that they will compare favorably with those of Dr. Warwick.

Dr. F. D. Boyd, Fort Worth: I wish to report the following cases of chronic suppurative otitis media, which were treated by zinc ionization:

Case No. 1—R. L., male, aged 28, had had a purulent otorrhea for 5 months. The drum-head was absent. He had been previously treated with mercurochrome, without improvement. He was given 2 ionizations of 3 ma. 10 min., one week apart. A week later there was a serous discharge, and in another week the ear was dry. Two months after the first treatment the ear is still dry.

Case No. 2.—E. C., female, aged 21, had had an intermittent, purulent otorrhea for the past 10 years. The drum was absent, the middle ear filled with polypi, and the discharge had a carrion-like odor. Although the tonsils had been removed, a large portion of the left tonsil remained. This tonsil remnant was removed and an ionization of 4 ma. 15 min. was given but the discharge continued. The polypi were removed and the granulations cauterized with silver nitrate. After three ionizations and the instillation of 5 per cent mercurochrome, three times a day for a month, the discharge was practically absent.

Case No. 3.—R. W., female, aged 26, had suffered from a purulent otorrhea at intervals since childhood. There was a large hole in both drum-heads. Ionization of 4 ma. 15 min. was given, and repeated twice. Both ears were dry when last seen. The patient was advised to have her diseased tonsils removed, but refused.

Case No. 4.—F. P., male, aged 19, had had an intermittent otorrhea for 10 years, with large holes in both drum-heads. The ears were dry after two ionizations. Tonsillectomy was advised in this case.

Case No. 5.—J. J., female, aged 19, had a purulent otorrhea with an accute exacerbation. The left drum was incised and diseased tonsils removed. After several ionizations the ear remained dry.

Case No. 6.—E. J., female, aged 14, had had a purulent left otorrhea for six years, and a small hole in the drum-head. The tonsils had been removed. After 3 ionizations a slight odorless serous discharge remains. The ear will be ionized again at her next visit.

From the cases reported by Dr. Warwick, and others, and from my own experience, I draw the following conclusions: (1) Cases of purulent otorrhea, with large perforations of the drums and without granulations or polypi, and with pure tympanic sepsis are more suitable for ionization than those with an associated mastoid sepsis; (2) from one to three treatments are required to stop the discharge in the average case, and (3) the removal of diseased tonsils is essential in obtaining a permanent cure.

Dr. O. H. Judkins, San Antonio: So far as my own observations go, this is the first time the exact chemistry of zinc ionization in suppurative middle ear disease has been explained; at least, I have never read an article wherein the writer went so minutely into the details of the chemical and physical changes occurring in the tissues, which changes account for the favorable results so often obtained by this method of treatment. During a recent visit to Chicago, I became interested in this subject and upon making inquiries as to where I could acquire the technique, I was told to go back to Texas, as Dr. Warwick of Fort Worth had had more experience with the method than any other man in the United States.

When I returned home I spent some time with the essayist, learning at first hand his technique, which is surprisingly simple. I have used it in almost every case of suppurative otitis media coming under the observation of either myself or my associates for the past two months, and the results have more than justified the enthusiasm of the essayist.

My personal experience does not include sufficient cases, nor has sufficient time elapsed, for me to make a report. However, there is one point made by the essayist which I should like to emphasize, the current should be turned on very slowly and turned off very slowly. I usually consume from one to two minutes in gradually increasing the current from zero to three ma., and a like amount of time in turning if off after the treatment is finished. If you rapidly advance the control, or suddenly turn off the current, it is very painful; and if this happens at the first treatment, the probabilities are that the patient will not return for further treatment.

Another thing I have noticed that I have not heard the essayist mention, is the sensation of dizziness noticed by the patient as the current is being turned on, and also as it is being turned off. When I go beyond three ma., the majority of my patients complain of pain and I am compelled to turn the switch back. However, it is my opinion that this method is destined to revolutionize the treatment of suppurating middle ears, because if one can cure his patient at one treatment, which has been my experience in a number of cases, why go back to the old methods? Much credit is due Dr. Warwick for bringing this procedure to the attention of Texas otologists.

I would like to ask what becomes of the sodium ion released when the sodium chloride meets the zinc ion in the tissues, forming zinc chloride?

Dr. Louis Daily, Houston: Last year I noticed reports of this treatment in the British journals and decided to try it. Not having their apparatus, I used the simple apparatus that we bought in Berlin, for ionization treatment of the eye. I used it only in those cases where there was no mastoid involvement. The results have been very good; the most striking results I obtained were from its use after radical mastoid operations. I used it in three cases, and after the first treatment the discharge diminished markedly, and the pain and tenderness disappeared, so that the case could be dressed without discomfort. In one case I used it only twice, and after that the cavity was covered with epithelium. I believe that it is of great value in treating uncomplicated chronic suppurative otitis media.

Dr. Warwick (closing): I mentioned the necessity of slowly turning the current on. The patient's bodily resistance becomes lowered rapidly and as the resistance falls, the milliamperage rises so you must watch the milliamperemeter closely. I have found that three milliamperes for ten minutes is sufficient.

Mr. Stevenson (closing): It will be recalled that because sodium and zinc are electropositive elements they seek the negative pole, whereas chlorine and sulfate ions move to the positive pole. The zinc ion combines with the chlorine to form zinc chloride, while the sulfate ion combines with the zinc wire. This, as Dr. Judkins has mentioned, leaves the disposal of the sodium ion yet to be accounted for.

Sodium in its ionic and metallic state is a very reactive element. It combines vigorously with water to form sodium hydroxide. Of course, no sodium *per se* ever reaches the negative pole. It may combine immediately with water to form sodium hydroxide, but this chemical is decidedly caustic and we find no lesion due to cautery. As we know, carbon dioxide is omnipresent in the tissues and fluids of the body. Its solution in water forms carbonic acid, and it is the function of the alkali of the blood to neutralize this acidity and eliminate it by respiration as carbon dioxide. So it appears that this hypothetical sodium hydroxide would be neutralized by the carbon dioxide, first forming sodium carbonate, but as carbon dioxide is present in excess, the final product would be sodium bicarbonate, a physiological constituent of the blood.

Of course, this is only a hypothetical solution of the sodium question, but it seems logical to conclude that this is a condition similar to that which occurs when we use sodium carbonate intravenously, namely,

neutralization of the foreign alkali by the carbon dioxide of the blood, forming a physiological constituent. At any rate, we are obtaining a harmless sodium compound.

MISCELLANEOUS

INTERNATIONALISM OF MEDICINE.

In fighting the common enemy—disease—national boundaries play little part.

A famous British surgeon, visiting this country, was asked if he had brought over any new secrets of his art.

He said, "Our profession is international. When we find a new way to conquer the ailments of mankind it is immediately communicated to the whole world."

The science of medicine deals with mankind, not races.

Those who are true to the ideals of their profession are helping knit the world into a closer brotherhood. —*Fort Worth Record*

QUACK EITHER IGNORANT OR CROOKED.*

A certain surgeon has well said that crookedness and ignorance are the basis of quack practice. If the quack is ignorant enough he need not be so crooked. If he is crooked enough ignorance is not necessary.

The theories of cure-all cults are bald assumptions, unproved notions without foundation in demonstrable facts. For example, let us examine the tenets of chiropractic, one of the most popular cults of our day.

What the Chiropractor Claims.—The chiropractor claims, first, that all functions in health are regulated by the thirty-one pairs of spinal nerves. This is bald assumption No. 1, for these nerves control the motion and sensation of the arms, legs and trunk but have to do only indirectly with controlling the functions of the heart, lungs, liver, stomach, intestines, spleen, or kidneys. Many vital parts have automatic control within themselves, the nerves having only a modifying action. Other functions are controlled by chemical substances generated in ductless glands or elsewhere and reaching the various portions of the body through the circulating blood and not at all by the nerves.

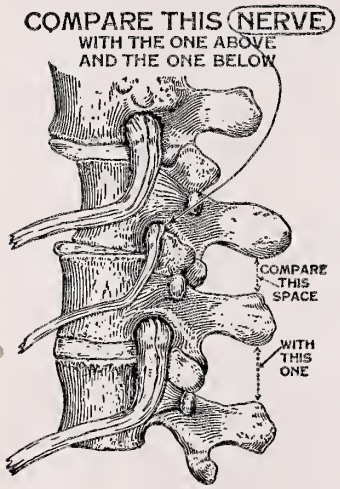


Fig. 1.

Second, he claims that all disease is due to pinching of these nerves by displaced vertebrae (bald assumption No. 2). The accompanying illustration (Fig. 1) is used to give his theory an appearance of scientific verity. Note that the nerve is shown filling the entire opening between the bones.

This drawing is a gross misrepresentation of the facts. Fortunately for the chiropractor, as W. J. Mayo remarks, he has a good alibi, for people cannot see their backs— much less the relative size of the spinal nerves and the openings through which they come.

The real facts are shown in Fig 2, where it will be seen that the diameter of the nerve is small compared with the size of the opening. Moreover, the space about the nerve is padded with fat and soft tissue. Were this not the case the slightest ordinary movement of the spine, such as bending backward or to the side, would cause severe pain and spasms.

One professor of anatomy tells the writer that in all his years of experience he has never seen a dead body with a pinched or compressed spinal nerve, and that he has been able to push the end of a finger into each opening, which means that the nerves have plenty of room.

In the most extreme deformities of the spine, in the worse cases of hunch-back (due to tuberculous destruction of the bodies of the vertebrae), there is no pinching of the spinal nerves. Likewise in even so severe an injury of the spine as fracture, it is rare that any pinching of the spinal nerves occurs. Such facts as these entirely disprove the ridiculous claim of the chiropractor that all diseases are due to pinched nerves from minute subluxations (displacements) of the vertebrae.

Dislocations of the vertebrae almost never occur, except in the neck; in fact it is well nigh an impossibility, for the cartilages that join them to each other are stronger and more resistant than the bones themselves and resist the most forcible efforts to tear them loose from the bones. The severest injuries to the back crush the bones while they are still held firmly by the fibrocartilages.

Vertebrae Almost Never Dislocated—This fact has been known by surgeons for years, but to prove it beyond the shadow of a doubt, Dr. L. C. Kellogg, instructor in anatomy in the College of Medical Evangelists (a class "A" medical school of California), recently conducted experiments to ascertain what would actually occur when severe strain is brought on the spine. The drawings given show the shape of the vertebrae, their relation to each other, and the position of the fibrocartilages between the vertebrae. Over all, the bones are still further held in place by dense ligaments and many layers of tendons and muscles.

The following is Dr. Kellogg's report verbatim as given in a personal letter to the writer:

"We did a little work with the spine to test the power needed to make an 'adjustment.' We made a sort of sawhorse with a wide top piece, and in this top piece we cut a mortise somewhat wider than the vertical dimension of a vertical body. For power we used a piece of two inch pipe about 13 feet long so arranged that one end was bolted to one of our cupboards, and the force was applied to the vertebra 1 foot from the fulcrum, thus making a lever of the second class. The bar alone exerted a force of something over 300 pounds, and for further force we used a large can which we hung on the bar at a measured distance and poured in sand, five pounds at a time.

"We selected the second lumbar vertebra for the experiment, and the spine was taken from the freshest cadaver that we had in the dissection room. This one had never been in the tank.

"The spine was fastened to the 'horse' with the ventral side down so that the selected vertebral body was over the mortise and supported only by means of its connections with adjacent vertebrae. The power was then applied to the tip of the spinous process.

"When a weight of 1,195 pounds was reached the neural arch was crushed, but there was no effect noticed on the bodies of the vertebrae. Then we cut away the processes and got down to the back of the body of the vertebra. In this case everything was cut away so that the only support that the body had was its union with its adjacent fibrocartilages.

*Reprinted from Hygeia, September, 1924.

"In order to protect the surface of the bone from the iron we fitted a smooth piece of hard wood over the back of the vertebra so that the posterior surface was almost entirely covered by the wood.

"This time 800 pounds proved sufficient to crush the body of the vertebra all to pieces. In fact it looked as though it had been ground up in a mill. However, for the most part the union with the cartilages remained intact, and the bone crushed at a distance of about 1/16 of an inch from the union with the cartilage.

"Next we tried a side thrust on the tenth thoracic vertebra. It was wholly intact, and the piece of wood was put on the side of the body so that the end did not extend quite so far forward as the ventral surface of the vertebra. The power was then applied and it required 1,315 pounds to crush through the bone. This body crumbled to pieces exactly as the other one did without breaking the union with the cartilages to any appreciable extent, and that part of the body that extended farther ahead than the wood remained unshaken. The wood cut right through the bone, and the part ahead of it still is united to its cartilages as firmly as ever.

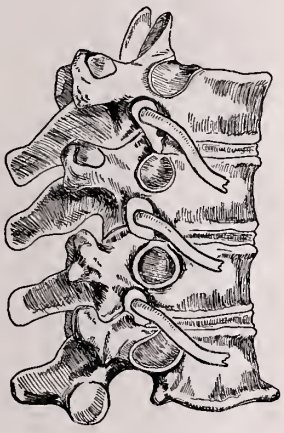


Fig. 2.

"Campbell, the author of one of the text-books used in this school, says that the bone is not so strong as the union with the cartilages. He cites as proof the fact that in case of a fractured spine the bone is broken and the joint remains intact. He cites no experimental proof, and this part is supplied by my experiment."

The conclusions cannot be escaped.

1. The spinal nerves have plenty of room in passing through the intervertebral foramina (openings between the bones), hence subluxation does not compress them.

2. A force of 1,200 to 1,300 pounds fractures the bone but fails to dislocate it.

3. In case of severe accident, if dislocation does occur, a fracture almost invariably accompanies it and usually crushes the spinal cord with the production of partial or complete paralysis below the point of injury.

4. The chief functions of the spinal nerves are connected with motion and sensation. They have little to do with the functions of the heart, lungs, liver, stomach, intestines and kidneys. The tenth cranial nerve and the sympathetic nerves are the ones that are connected with the functions of the internal organs of the chest and abdomen, and these are not so placed that they can be subjected to the pressure of dislocated vertebrae.

Hence the compression of the spinal nerves, even if it occurred (which it does not), would have little or no influence on the functions of the internal organs and would not cause disease of these organs.

Moreover, the last six pairs of spinal nerves pass, not between the vertebrae, but through openings in the sacrum, and hence cannot be subject to pressure of even imaginary dislocations.

5. The final conclusion is that the chiropractic dogma is a total misrepresentation of both the structure and function of those parts it attempts to explain. Subluxations of the vertebrae do not occur, and even if they did they would not cause disease of any internal organ.

G. K. Abbott.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Protein S. M. A. (Acidulated).—A modified milk preparation having a relatively high protein content and a relatively low carbohydrate content. Each 100 gm. contains approximately: protein (of milk), 35 gm.; S. M. A. fat (consisting approximately of tallow oil, 0 to 10 per cent; cocoanut oil, 15 per cent; cacao butter, 20 per cent; cod liver oil, 7.5 to 12.5 per cent; tallow, 45 to 50 per cent, 22 gm.; carbohydrate (lactose), 28 gm.; ash, 6 gm.; moisture, 2 gm.; desiccated lemon juice, equivalent to 16.7 cc. of fresh juice. The content of lactic acid is regulated so that when the substance is diluted according to directions the liquid will have a pH of 4.6. The use of protein S. M. A. (acidulated) is proposed as a means of checking diarrhea, in malnutrition and marasmus, and in the feeding of prematurely born infants needing a high caloric intake. Laboratory Products Co., Cleveland.

Bromeikon.—A brand of tetrabromophthalein sodium—N. N. R. (formerly called tetrabromophenolphthalein sodium). (New and Nonofficial Remedies, 1925, p. 141.) Bromeikon is supplied in bulk and in ampules of 5 gm. Mallinckrodt Chemical Works, St. Louis.

Typhobacterin (New and Nonofficial Remedies, 1925, p. 363). It is also marketed in packages of thirty 1 cc. vials (M193-5) (hospital size), being ten sets of three immunizing doses. H. K. Mulford Co., Philadelphia.

Normal Horse Serum (New and Nonofficial Remedies, 1925, p. 329). Marketed in packages of one syringe containing 10 cc.; also in packages of one vial containing 20 cc. Eli Lilly & Co., Indianapolis.

PROPAGANDA FOR REFORM.

Anacin.—The Birth and Development of a "Patent Medicine." Anacin is a patent medicine marketed by the Heidbrink Company, a dental supply house of Minneapolis. It is claimed for Anacin that it "Quickly relieves Headache, Toothache, Earache, Colds, Flu, Grippe, Neuritis, Neuralgia, Pain, Rheumatic Pain," and that "Doctors Reccommend It." In 1920 the Heidbrink Company wrote the Council on Pharmacy and Chemistry stating that the concern was considering the possibility of putting out certain medicinal preparations which it would wish the Council to consider. The firm did not submit any preparation to the Council, however. In 1922, Dr. F. W. Wittich of Minneapolis, sent two bottles of Anacin, one marked "Anacin spoiled" and the other marked "Anacin fresh," to the American Medical Association. The doctor gave the formula of the tablets, wrote that he had used it extensively, and asked for the cause of spoilage. He was given this information. Recently the Heidbrink concern claimed that the formula for Anacin was worked out by Dr. Wittich and his associates at the University of Minnesota Medical Department, where he had a professorship.—*Jour. A. M. A.*, October 3, 1925.

Calcium Therapy in Tuberculosis.—The theory that tuberculosis is accompanied by, and perhaps dependent upon, a demineralization, and especially a loss of calcium from the body, has not been supported by the best controlled investigations. There is no acceptable evidence that there is any decrease in the amount of calcium either in the blood or the tissues in tuberculosis.—*Jour. A. M. A.*, October 3, 1925.

NEWS

The Texas Surgical Society met October 12 and 13, at San Antonio.

The officers of this society are: Dr. H. M. Doolittle, Dallas, president; Dr. A. B. Small, Dallas, first vice-president; Dr. H. K. Aynesworth, Waco, second vice-president; Dr. H. L. D. Kirkham, Houston, secretary; Dr. J. B. Smoot, Dallas, treasurer, and Dr. W. B. Thorning, Houston, recorder.

Papers were read before this society by the following: Drs. W. L. Crosthwaite, Waco; W. Burton Thorning, Houston; R. M. Hargrove, Houston; John T. Moore, Houston; A. I. Folsom, Dallas; S. D. Weaver, Dallas; M. B. Stokes, Houston; F. P. Miller, El Paso, and Willard Cooke, Galveston.

Medical Center Planned by Pittsburgh, Pennsylvania.—According to a *Dallas News* of recent date, a $14,000,000 medical center is planned in connection with the University of Pittsburgh. The Presbyterian, Children's, Elizabeth Steel Magee, Montefiore, and the Eye and Ear Hospitals have agreed to form a group to operate in conjunction with the University's fifty-two story building. This plan will be financed by the respective hospitals joining the unit, most of which have plans under way for new buildings. The five institutions will have a capacity of 1,350 beds, said to surpass the capacity of any present group and equaled only by a similar amalgamation of the Presbyterian Hospital of New York City with the Medical School of Columbia University, now under way.

Quanah Sanitarium and Ball Hospital Consolidated.—According to the *Quanah Times* the Quanah Sanitarium and Ball Hospital with their staffs, have been united and the new organization, consisting of Drs. J. J. Hanna, R. R. McDaniel, J. W. Conley, T. D. Frizzell, J. M. George and C. B. Jones, will probably be known as the Quanah Clinic. A new two-story office building about 34x100 feet in dimensions and equipped with operating room and laboratory, will be erected on the lot just south of the Quanah Sanitarium. A school of nursing will be conducted in connection with the hospital and clinic. The School of Nursing of the Quanah Sanitarium graduated its first class last June, but with the new equipment the teaching facilities of this institution will be greatly improved.

SOCIETY NEWS

Bexar County Medical Society met October 1, with 80 members present.

Dr. J. M. Bliem reported splendid results from the use of a one per cent aquinol solution of gentian violet in the treatment of thrush.

Mr. William M. McIntosh spoke, upon invitation, on "Ethical Medical Advertising." He said in substance that the time had passed when the medical profession could stand behind the cloak of ethics and ignore dignified advertising. Making laws to make it tough on the quack doctors will not protect the people so long as printer's ink is available. Last year, the *San Antonio Light* turned down approximately 150,000 lines of quack advertising, due to their own censorship. What excuse has the medical profession for making the newspapers shoulder this responsibility? The Medical Practice Act is a marvelous instrument of law of which the medical profession can be justly proud, but the only ones who know of its existence (outside of the medical profession) are a few lawyers, and, of course, the quacks. Cascara and printer's ink have built many fortunes in this country, and will continue to do so in spite of all laws. The form of advertising adopted by the medical profession must be formative, and must not be merely a tirade against the fellow outside of the pale of your organization. Advertising has been reduced to science. The churches are "advertising to beat hell." The medical profession has a story for the people that touches 100 per cent of the earth—life.

Dr. Theo. Y. Hull stated that he had listened with considerable interest to the remarks of Mr. McIntosh, with which he agreed in some points, but thought the society should remember that Mr. McIntosh was in the advertising business. He stated that he was in full agreement with the proposition of publishing a roster of the county medical society in the newspapers at stated intervals. He had never felt that a dignified card in the paper was unethical, nor did he know of any one who had been brought before the Board of Censorship for so doing. Two years ago, he had predicted that doctors would be advertising regularly in the lay press. It is not now a question of newspaper advertising, but of a revision of the By-Laws to limit and control this advertising.

Dr. W. B. Russ stated that he agreed with Mr. McIntosh that the medical profession is under obligation to supply the public with information through the press to offset the villianous propaganda spread by quacks and nature-fakers. Through state universities and endowed institutions doctors are being educated, and it is a part of their duty to help safeguard the public health. The people have a right to know that ignorant, untrained men with cure-all systems for treating the sick are always a menace to the public health. Medical ethics is simply the Golden Rule applied to the practice of medicine. Such a code of ethics is necessary to protect the public against men whose professional character is not above suspicion, and there is nothing in this code to prevent doctors from supplying impersonal and proper information on public health matters. Newspaper men are, as a rule, actuated by the same high motives that control the minds of the best medical men, and there is no reason why the press and the medical profession should not coöperate in the great work of conserving the public health.

A report of the Publicity Committee was adopted, recommending the publishing of the Bexar County roster in the San Antonio newspapers at such intervals as might be deemed advisable by the committee; that individual physicians may carry dignified simple cards in the newspaper, and that the Constitution and By-Laws be revised so that this may be accomplished.

A committee was appointed to draw up resolutions on the death of Mrs. R. E. Bowen, Mrs. C. S. Venable and Mr. Henry McCorkle.

Bexar County Medical Society met at the Robert Green Memorial Hospital, October 8, with 40 members present.

Drs. A. F. Herff, C. E. B. Flagg, Milton Davis, Max E. Johnson and Philip McCaleb were elected to membership.

An amendment to the Constitution and By-Laws was read, providing for the county society roster appearing in the secular newspapers, and for educational articles which had been approved by the Board of Censors, to be written by members of the society for the public. There was a general discussion concerning the way members' names should appear in the telephone directory, and also concerning the question of publicity in the lay press.

Dr. Cole Kelly gave an address on "Abdominal Pregnancy." He said that only 200 full term pregnancies had been reported in the literature and that although one per cent of all pregnancies are ectopic,

only a very small percentage of these go to full term. There have been four cases of primary abdominal pregnancy reported. Most ovarian pregnancies are tubal. In the last two years there have been eight cases of extrauterine pregnancies at the Robert Green Hospital, of which three were abdominal, and only one went to full term. The term "abdominal pregnancy" is a very indefinite one, as all ectopics are really abdominal. In the majority of cases an amniotic sac should be formed about the fetus. Of the eight cases, five occurred in the left side, two in the right, and in one report the side was not given. These cases are usually misdiagnosed at first, and curettage or forceps may be tried. In tubal pregnancy the diagnosis is seldom made prior to rupture, since the patient is not usually seen by the physician until this symptom appears. This condition must be differentiated from torsion of the pedicle of an ovarian cyst, ruptured pus tubes, appendicitis, etc. The symptoms after rupture, such as acute collapse, marked drop in blood-pressure, fast pulse, etc., are well known. At times, a mass may be felt, and in advanced abdominal pregnancy the fetal parts may be palpated more easily than in uterine pregnancy. A blood transfusion in case of rupture is of the greatest help. DeLee leaves all blood clots in the abdomen, and at times the placenta must be left, because of excessive bleeding following attempt at removal. In such cases the abdomen is treated and the placenta allowed to slough. In the cases at which the child is at term, it is usually already dead or deformed. The prognosis for the mother is quite good, considering the gravity of the situation. In the case operated by Dr. Kelly, the patient thought she was pregnant, and the case was a typical picture of a ruptured ectopic. The fetus lay loose in the abdomen inside a large clot, the rupture apparently having taken place six weeks previously. The age of the fetus was estimated at about two and one-half months. The placenta was macerated, and when stripped from the bladder left an oozing surface. A pack was placed against the bladder, backed up with a rubber dam. A large opening was left in the line of incision for drainage. Four hundred cc. of blood was given at the close of the operation and the patient made an uneventful recovery.

Dr. C. C. Cade opened the discussion. He exhibited a splendid specimen of a full-term abdominal pregnancy in the removal of which he had assisted Dr. Julius Braunnagel. This patient had not menstruated in four months and thought she was pregnant, but when delivery did not occur at nine or ten months, was operated, and what was believed to be a cyst (the blood supply of which was received from the appendiceal artery) was punctured and fluid withdrawn. The tumor was removed and was found to contain a full-term child that had been viable up to a short time before delivery.

Dr. L. J. Manhoff called attention to the value of *x*-ray in the diagnosis of extra-uterine or abdominal pregnancy.

Dr. Kelly, in closing, emphasized the importance of early diagnosis and immediate operation.

Dr. C. C. Cade read a paper on "Perineal Lacerations." He discussed the different degrees of tears and the subsequent pathologic changes in these. He thought the levator ani should be dissected out and correctly approximated with interrupted sutures. He described in detail the anatomy of the levator ani muscles and surrounding structures. The cause of failure in perineorrhaphies are usually trauma and infection. In doing an immediate repair the stitches should be placed from the outside, but in later operation the flap of dissected vagina is not removed but is utilized in filling the gap. He reported a recent case of repair of a complete tear extending into the rectum, which had been repaired by the above described technic, in which the results were excellent.

Dr. I. T. Cutter opened the discussion. He mentioned the additional danger to the baby in an effort to prevent laceration. He considered it advisable when a tear was imminent to make an incision so that the direction of the tear may be controlled, as the after results will be better than in the case of irregular laceration.

Dr. Hiram Philips thought that success depended upon correctly approximating the levator ani muscle, and thought that repairs can be done sooner than three months. He did not advise irrigations or other meddlesome measures, as the danger of infection is thereby increased.

Dr. Cole Kelly thought that the time element was of the most importance in preventing laceration. A slow dilatation is the best preventive measure and a hurried delivery accounts for the majority of lacerations.

Dr. C. F. Lehman discussed cases of two patients with generalized furunculosis. Before treatment, they were very toxic and marasmic, but a few days after they had been treated with syrup of ferric iodid, they showed marked improvement.

Resolutions of sympathy were adopted upon the death of the father of Dr. R. G. McCorkle.

Bexar County Medical Society met October 15, with 42 members and two visitors in attendance.

A communication from Dr. Holman Taylor was read, urging the appointment of a special committee to create interest in the approaching meeting of the Southern Medical Association in Dallas, and a committee was appointed by the president for this purpose.

Dr. I. S. Kahn reported the case of a young girl who, when first seen by him in June, was expectorating from a pint to a pint and one-half of foul smelling pus per day. She gave a history of having had pneumonia in 1918, followed by a period of a number of weeks in which she had a severe cough, and in 1919 she had several febrile attacks with purulent expectoration. In February, 1921, she had influenza. During the last two years the patient had lost considerable weight and the expectoration had increased. Physical examination showed an area of flatness over the left lower lobe, anteriorly and in the exilla. The heart was not misplaced. Tubular breathing was heard over the affected area. The blood and sputum examination revealed nothing of importance. The fluoroscopic was negative when made postero-anteriorly, but on turning the patient one could see a fan-shaped shadow behind the heart. The *x*-ray plate showed the results of the former attack of influenza in the right base. The patient was placed on her right side and upside down, and pus poured out of her mouth, showing connection with a good-sized bronchus. The *x*-ray study finally revealed a posterior mediastinitis, and the tubular breathing was explained by the direct transmission from the bronchus through the fistula and thence to the pleura. Under postural drainage the amount of pus has decreased to about three ounces in 24 hours. She lost her temperature, and at the end of the third week, began to gain in weight and feel better. Artificial pneumothorax cannot be done, as adhesions would prevent lung collapse. If a rib resection was done and a tube inserted, the healing would probably not take place, due to the communication with the bronchus.

Dr. Luter opened the discussion, stating that he thought that an operation should not be attempted at this time as the patient was getting along nicely under Dr. Kahn's treatment.

Dr. Theo. Y. Hull believed that postural drainage was the proper treatment in this case. He had seen

a young man who originally had a circumscribed interlobar empyema communicating with the bronchial tract. Postural drainage, night and morning, had kept the cavity empty, but the condition still exists. He wondered if surgery had anything to offer in this case.

Dr. J. M. Nixon, Jr., stated that Dr. Everett Graham of St. Louis, was considered the foremost chest surgeon in the United States today, and that Dr. Graham did not advise operation as long as the condition of the patient could be improved by postural drainage or other means. Dr. Graham uses the actual cautery in operating, burning away from one to one and one-half inches of lung tissue at a time. It usually requires several operations to reach the abscess cavity. By such a method great loss of blood is avoided. He thought from what Dr. Graham had said that Dr. Kahn's patient should be continued on the present line of treatment.

Dr. L. B. Jackson thought that the use of a tube would result in a permanent fistula, and advised against operation as long as the patient was improving.

Dr. Herbert Hill reported a case in which a tube had been used for draining a bronchiectatic cavity, which resulted in a fibrous tube being formed where the drainage tube had been inserted. He advised continuation of the postural treatment.

Dr. W. M. Barron stated that although one might question the conclusions drawn from the *x*-ray picture, the diagnosis was probably correct. He thought this case illustrated the close coöperation that should always exist between the internist and the röentgenologist.

Dr. Kahn, in closing, stated that he was going to continue the present treatment at least until the patient began to get worse.

Dr. Roy T. Goodwin reported a case of "Spontaneous Pneumothorax," apparently non-tuberculous. He had been able to find only 200 cases of non-tuberculous spontaneous pneumothorax in the literature. Although the condition occurs frequently in pulmonary tuberculosis, it is rarely seen in other diseases—with the exception of traumatism. The patient gave a negative past history, dating his present illness from July 1, when he had spent most of the day carrying heavy boxes up a stairway. Late that afternoon he began having some pain in the chest, and at 3 a. m. next morning was awakened by a severe pain and distress in the chest. He experienced a severe pressure in the chest with difficulty of respiration. When seen at 10 o'clock that morning the percussion note of the chest was hyperresonant and the breath sounds diminished. A radiogram taken at this time showed about fifty per cent pneumothorax filling the cavity. After 28 days in bed at a hospital, a second radiogram showed nearly all of the air absorbed. During this time he ran a temperature from 99 to 100 degrees F. On leaving the hospital he went home and remained in bed on a forced diet and had gained some 25 pounds in weight. On October 5, a third radiogram showed a complete absorption of the air. There was no fluid in the chest at any time. Dr. I. S. Kahn and himself had gone over the patient very thoroughly, and were both of the opinion that the case was not tuberculous. Similar cases had been caused by the rupture of a minute subpleural tubercular focus, usually resulting later in active tuberculosis, and the recurrence of the pneumothorax is very common. The tuberculin test in this case was negative.

Dr. I. S. Kahn stated that since the condition is so common in tuberculosis, it is always best to regard such a case as tuberculous and treat it accordingly. In a case which he had reported several years previously, there was no evidence of tuberculosis and at the end of seven weeks no absorption of the air had taken place, and so he had drawn 800 or 900 cc. with good results for several years. In a tuberculous case pneumothorax usually results from the pulling off of adhesions that extend down into the lung tissue. He did not know what the mechanism had been in the case reported by Dr. Goodwin and also in the one he had reported three years previously.

Dr. Barron stated that in these cases there is usually a very small pin-point rupture of the trachea or esophagus. He had seen a case similar to the one reported in the army, but had not been able to demonstrate any tuberculous origin.

Childress-Collingsworth-Donley-Hall Medical Society met October 15, at Memphis, with a good attendance and a very interesting program.

A lunch was served to the physicians in attendance.

Childress-Collingsworth-Donley-Hall Medical Society met at Wellington, October 16.

Among other papers was one by Dr. Wilder of Clarendon, which was freely discussed by a number of those present.

The society was given a banquet at the Wellington Hotel by the Wellington doctors.

The next meeting will be held in Clarendon, November 13.

Dallas County Medical Society met September 24 in the auditorium of the Medical Arts Building, with 63 members present.

Dr. J. L. Touchstone read a paper on "Diagnosis and Treatment of Acute Pyosalpingitis, with Report of Cases," which was discussed by Dr. C. M. Rosser.

Dr. C. C. Nash read a paper on "Fractures of the Spine," which was discussed by Drs. W. B. Carrell, Howard DuPuy and A. I. Folsom.

A committee was appointed to make recommendations regarding the advisability of having Dr. James Cooper of the American Birth Control League appear before the society on his trip through Texas.

Mr. Jed Morrow, reporting for the committee on enforcement of the Medical Practice Act, told of the progress being made in prosecuting violators of the law, and urged such action as is necessary to secure public approval of the same, and suggested that the society raise funds to be used in running advertisements in the local papers during the succeeding eight or ten weeks. After some discussion, a motion was carried that $1,500.00, or more if needed, be raised for that purpose. Dr. C. C. Holder then presented plans for the opening and operation of an ethical emergency hospital in the Medical Arts Building, and asked the endorsement of the society, which was given.

Dallas County Medical Society met October 8 in the auditorium of the Medical Arts Building, with 63 members and 13 visitors present.

Dr. C. M. Grigsby reported the case of a man 62 years old, with intense constant precordial pain extending down the left arm. Two hypodermics of morphin were necessary to relieve pain. On the second day, the patient developed a temperature of 101° F., and the third day, a precordial friction rub was discovered, and a diagnosis of coronary occlusion was made. He died very suddenly after two weeks in the hospital.

Dr. C. M. Sampson of New York City delivered a very interesting and instructive lecture on physiotherapy.

Dr. Wm. H. Stokes was elected to membership on transfer from the Washtenaw County Medical Society, Ann Arbor, Michigan.

The following resolutions were adopted: "*Resolved*, that in appreciation of the scientific standards maintained by the dental profession generally, and

out of the high regard that the Dallas County Medical Society has for the Dallas Dental Society, that we extend an invitation to have such publicity committee as may exist, or may be appointed by their president, meet with a like committee of our own, to discuss publicity in which the two professions have a common interest."

Dr. O. H. Marchman urged all members to join the Southern Medical Association.

Dr. Kelley exhibited a sterilizer for use in soda fountains, etc., manufactured by the Certified Sterilizer Corporation of America, and asked the endorsement of the society. A committee was appointed to investigate the sterilizer and report at the next meeting.

Eastland County Medical Society met October 20, at Cisco, with the following members present: Drs. T. J. Jackson, Carbon; C. O. Terrell and John B. Stackable, Ranger; W. P. Lee, J. E. Griffin, J. K. Scott, E. L. Graham, John H. Brice and J. W. Gregory of Cisco; J. G. Church and Helman Rosenthal.

Dr. J. B. Stackable of Ranger read an interesting paper.

This being the regular time for the nomination of officers, the following officers were nominated for the ensuing year: President, Dr. Charles Hale of Cisco; vice- president, Dr. J. B. Stackable of Ranger; secretary, Dr. E. L. Graham of Cisco. Dr. E. C. Blackwell of Gorman was elected as delegate to the State Medical Association.

Ranger was selected as the next place of meeting.

Falls County Medical Society met October 12, with the following members present: Drs. N. D. Buie, J. W. Torbett, S. S. Munger, T. G. Glass, A. J. Streit, J. H. Barnett, S. P. Rice, M. A. Davison, C. H. Hendry, H. S. Garrett, A. C. Hornbeck and H. O. Smith.

Dr. N. D. Buie presented a case in which he had made the diagnosis of "Diabetes Insipidus." This case was freely discussed by those present.

Dr. C. H. Hendry read a paper on "Medical Experiences During Five Years in China."

Dr. N. D. Buie discussed his recent visit to the hospitals in New York City, and was followed by Dr. J. W. Torbett, who related his experiences during his recent trip.

Hidalgo County Medical Society met at the Linger Inn Cafe, Edinburg, October 15, with 21 physicians and four guests present.

Attorney Ed Yarbrough of Edinburg, delivered the opening address, which was followed by the scientific program. Among other papers read was one by Dr. Gauner of McAllen.

After the scientific program, the society was entertained by Mr. H. C. Harter, who rendered several violin selections, and by Miss Walden, who gave several piano numbers.

Lamar County Medical Society met at seven o'clock p. m., in the reception room of the Paris Golf Club. The meeting was called to order by the president, Dr. T. W. Buford.

Drs. Thielen and L. M. Gooch were appointed to arrange for a hall for Dr. Cooper of New York, to speak in, on October 29.

Dr. E. H. Stark read a paper on "Transfusion of Blood," which was discussed by Drs. J. M. Hooks, O. W. Robinson, T. W. Buford and others.

Dr. Thielen read a paper on "Dental Caries." This paper was well received and was discussed thoroughly by members of both the dental and medical professions.

The question of medical legislation was discussed, especially in regard to the irregulars, and the secretary was instructed to 'phone all members the time the trial of certain violators of the Medical Practice Act would begin. The motion was carried that the officers spend whatever money was necessary in the Publicity Campaign.

McLennan County Medical Society met October 13, with the following members present: Drs. Ed Smith, R. J. Alexander, M. W. Colgin, Paul Murphey, K. H. Aynesworth, J. H. Womack, C. H. Brooks, C. W. Davis, H. J. Germany, W. R. Nail, Fleta Woolsey, J. L. Kee, T. L. McDonald, C. E. Collins, Roscoe Etter, R. B. Alexander, H. Z. Sexton, W. A. Wood, I. W. Jenkins, S. A. Friedsam, J. M. Witt and S. R. Jones.

Letters from President, Dr. Rosser, and Secretary, Dr. Taylor, were read to the society and a committee was appointed to canvass the society with the view of getting a large attendance for the Southern Medical Association meeting in Dallas, in November. This committee was composed of Drs. Paul Murphey, chairman; Boyd Alexander and J. H. Womack.

A committee composed of Drs. H. R. Dudgeon, chairman; H. Z. Sexton and R. J. Alexander was appointed to confer with the doctors of Waco and with the citizen who is proposing to erect a medical arts building in Waco.

It was voted to have a banquet on October 20, for the purpose of creating sentiment for the enforcement of the Medical Practice Act, and the following committee was appointed to arrange for the banquet: Drs. J. M. Witt, chairman; K. H. Aynesworth, C. E. Collins, C. H. Brooks and H. R. Dudgeon.

Dr. N. D. Buie, Councilor for the Twelfth District, and O. C. McMullen, Councilor for the Eighth District, were present and made forceful talks on the best method for securing enforcement of the Medical Practice Act.

Dr. J. L. Kee read a paper on "Stroganoff Treatment of Eclampsia," which was discussed by Drs. C. W. Davis, O. S. McMullen, N. D. Buie and Paul Murphey.

Nueces County Medical Society met October 13, in Robstown, Texas, with the following doctors in attendance: A. H. Speer, A. North, F. R. Halstead, B. H. Passmore, Edgar G. Mathis, Jerome Nast and M. J. Perkins of Corpus Christi; George Wyche, J. M. Thompson, N. D. Carter and M. L. Williams of Robstown; C. P. Yeager, Glenn Bartlett, H. Allison and Light of Kingsville; C. K. Russell of Falfurrias; N. W. Atkinson of Alice; James Griffin of Orange Grove, and Thompson of Chapman Ranch.

An excellent banquet was served the society, after which Dr. J. M. Thompson of Robstown presented a clinic to the meeting.

Dr. F. R. Halstead of Corpus Christi, read a paper on "Glaucoma," which was discussed by Drs. Edgar G. Mathis and N. W. Atkinson.

Dr. Glenn Bartlett of Kingsville, read a paper on "Painless Childbirth," which was discussed by Drs. Passmore, Russell, Perkins and Wyche.

Dr. B. H. Passmore of Corpus Christi, read a paper on "Acute Nephritis," which was discussed by Dr. Nast.

Dr. C. P. Yeager, Councilor for the Sixth District, and Dr. A. H. Speer, president of the Nueces County Medical Society, made appeals for coöperation of the society in the campaign for enforcement of the Medical Practice Act.

Potter County Medical Society met October 12, 1925, with the following doctors present: A. J. Caldwell, Richard Keys, J. J. Crume, R. M. Bennet, L. V. Dawson, A. H. Lindsay, W. Forrest Dutton, M. L. Fuller, H. H. Latson, J. R. Wrather, E. A. Johnston, W. H. Flamm, S. P. and R. L. Vineyard, A. E. Winsett, B. M. Puckett, D. Roach, R. S. Killough, E. T. Dunaway, A. F. Lumpkin, I. Rasco,

L. K. Patton, D. S. Marsalis, Neal Hall, W. Van Swearingen, D. M. Stewart, Philip H. Wolfram, M. A. Biggers and C. E. Donnell.

Dr. J. J. Crume read a paper on "Sinusitis," which was freely discussed.

Dr. W. H. Flamm read a paper on "Pain in Upper Abdomen." He stressed some of the mistakes in diagnosis commonly made, when the pain is located in this region. The paper was liberally discussed.

Dr. C. A. Pierle, chemist, West Texas State Normal, read a paper on "Brown Stain and Mottled Teeth." He stated that this was a subject that should be interesting to the whole Panhandle, and that his experience on animals led him to believe that the disease was due to a lack of calcium in the water and food consumed in the affected areas.

Dr. Jason B. Roberson was received into membership by ballot, and Dr. Philip H. Wolfram was received on transfer from the Cook County (Illinois) Medical Society.

Tarrant County Medical Society met October 6, with 40 members present.

Dr. Lee M. Whitsitt presented two interesting clinical cases in which the diagnosis was in doubt. Both had long continued having fever and although not typical of typhoid were treated as such in an expectant manner. The angles of questions of diagnosis in similar cases were discussed generally. Dr. McKean reported a similar case in an adult male, 35 years old, in which though all laboratory reports were negative for malaria, yet quinin given intravenously cleared up the fever. These cases were discussed by Dr. E. P. Hall.

Dr. E. P. Hall discussed "The Management of a Case of Obstetrics in the Home." He pointed out that in the hospital asepsis could be practiced, while in the home antisepsis must necessarily be the method used. The doctor usually has to do all the work in these cases as satisfactory nurses are not often available. The patient should be prepared as in the hospital (that is, shaved, etc., and an enema given if there is sufficient time), and antisepsis should be used during the delivery. He urged that all cases should be encouraged to go to the hospital.

Dr. R. L. Grogan read a paper on "Anesthesia in Obstetrics." He sketched the history of general anesthesia in these cases and discussed the general indication for same, the choice of the anesthetic being stressed. He condemned chloroform in any form. He next sketched the technic of gas-oxygen anesthesia and of the Gwathney rectal anesthesia, discussing the indications for each. He made a strong plea for some sort of anesthesia for the woman in labor.

Dr. G. V. Morton read a paper on "The Use of Version in Obstetrics." He sketched the history of this practice, citing the fact that it was one of the first operations used in obstetrics, but that only in recent years has the subject reached the peak of interest. He reported several recent cases, in which he had successfully done an external cephalic version, changing from a breach into a vertex presentation. He recommended podalic version instead of of high or medium forceps, and while condemning Potter's radical stand, yet he gave him much credit for perfecting the technic of version.

Dr. Edwin Davis opened the discussion.

Dr. C. P. Hawkins advocated less rush during the first stage of labor in order to reduce the number of cervical tears, and their serious consequences. He was followed by Drs. I. L. Van Zandt, G. V. Morton, R. L. Grogan and E. P. Hall.

The Committee on Arrangements for the North Texas Medical Association meeting was appointed by the president.

The Public Relations Committee was appointed, as follows: Dr. Wm. S. Horn, chairman; Drs. W. L. Allison, Edwin Davis, T. H. Thomason and Joseph McVeigh. Dr. Horn sketched the program to be followed by this committee and the matter was discussed generally by Drs. I. C. Chase, R. W. Moore, E. P. Hall, W. G. Phillips and Holman Taylor.

Van Zandt County Medical Society met October 2, 1925, with six members and one visitor present, Dr. Felix V. Bryant presiding.

Dr. Ben B. Brandon reported a case of "interstitial hypertrophy of the liver," that had been treated with diathermy.

Dr. Ben B. Brandon read a paper entitled: "Catarrhal Jaundice Treated with Diathermy."

The Van Zandt County Medical Society went on record as indorsing the "Roster Publicity Plan," recommended by the State Medical Association, and Drs. M. L. Cox and Ben B. Brandon were appointed as the County Publicity Committee.

Williamson County Medical Society met at the Blazilmar Hotel at Taylor, October 21, with the following members present: Drs. Y. F. Hopkins, Ed Doak, E. W. Stromberg, J. J. Johns, Wedemeyer, J. I. Collier and Sams of Taylor; S. B. and B. A. Kirkpatrick of Thrall; C. C. Foster of Granger; Henry Kuehne of Coupland; J. F. Flinn of Hutto; Miller of Leander, and J. R. Martin and W. G. Pettus of Georgetown. Visiting doctors present were: M. H. Boerner and J. C. Thomas of Austin; O. F. Gober and G. V. Brindley of Temple; T. G. Glass and H. S. Garrett of Marlin, and J. C. Anderson and daughter of Plainview.

Dr. Morris Boerner of Austin, read a paper entitled "Mistakes," in which he discussed some of the common mistakes made in the surgery of the ear, eye, nose and throat diseases. This paper was discussed by Dr. Collier.

Dr. Tom Glass of Marlin, read a paper by Dr. N. D. Buie of that city, on "Hay Fever and Asthma." The paper described the treatment used by specialists in New York City, in hay fever and asthma. This paper was discussed by Drs. Anderson, Boerner and Gober.

Dr. G. V. Brindley of Temple, read a paper on "Cancer of the Rectum," which was illustrated by lantern slides. This paper was discussed by Drs. Thomas, Glass, Doak and Johns.

Drs. Gober and Anderson, having recently returned from a trip to Europe, gave a most instructive discussion on what they had learned from the clinics that they had visited.

Dr. R. C. Miller of Leander, was elected to membership.

The Taylor doctors then regaled the society with an elaborate luncheon at the Blazilmar Hotel.

Panhandle District Medical Society met at Clarendon, October 13 and 14, 1925. The meeting was called to order by President Dr. H. L. Wilder of Clarendon, and the invocation was pronounced by the Reverend Roscoe Stapp, pastor of the Baptist Church. The address of welcome was delivered by County Judge J. R. Porter. The following scientific program was then rendered:

"Certain Syphilitic Skin Lesions" (with lantern slide demonstrations), by Dr. Bedford Shelmire of Dallas; "Mercurochrome Intravenously," by Dr. Louis K. Patton of Amarillo; "Tetanus" (report of case), by Dr. R. B. Wolford of Wichita Falls; "Internal Ear and Its Clinical Manifestations," by Dr. P. H. Wolfram of Amarillo; "The Signification of Heart Murmurs," by Dr. Robert B. Giles of Dallas; "Chairman's Address (Section on Gynecology and Obstetrics), "Backache," by Dr. E. H. Morris of Canadian; "Hysterectomy" (with lantern slide dem-

onstrations), by Dr. Chas. H. Harris of Fort Worth; "Nitrous Oxide in Obstetrics," by Dr. Fred H. Cariker of Childress; "Obstetrical Cases I Wish I Wasn't At," by Dr. W. A. Warner of Claude; "A Plea for the Conservation of the Species," by Dr. W. H. Flamm of Amarillo; Chairman's Address (Section on Surgery), "Pyelitis, Some General Considerations," by Dr. W. Wilson of Memphis; "Carcinoma of the Rectum, Some Phases of Diagnosis and Treatment," by Dr. G. V. Brindley of Temple; "Kidney Infection," by Dr. T. D. Frizzell of Quanah; "Perineal Prostatectomy (Demonstrated by Lantern Slides and Moving Pictures)," by Dr. Howard L. Cecil of Dallas; "Ruptured Uterus, Report of a Case Eight Months Pregnant," by Dr. R. R. McDaniel of Quanah; "Progress in Surgical Treatment," by Dr. J. T. Krueger of Lubbock.

Some of the social features of the meeting consisted in a luncheon for the society and their guests, given by the Lions Club, at noon on the thirteenth, and a musical program that evening, rendered by the Fine Arts Department of Clarendon College at the college auditorium. After this program an ice cream supper was served at one of the cafes. At one p. m. on the fourteenth, a luncheon was served the society at the Clarendon Hotel.

The following section officers were elected for the next meeting: Section on Medicine: chairman, Dr. N. E. Greer of Lockney; secretary, Dr. H. H. Latson of Amarillo; Section on Gynecology and Obstetrics: chairman, Dr. E. W. Jones of Wellington; secretary, Dr. D. C. Hyder of Memphis; Section on Surgery: chairman, Dr. B. L. Jenkins of Clarendon; secretary, Dr. W. N. Wardlaw of Childress.

Dr. A. F. Lumpkin of Amarillo, Councilor for the Third District, tendered his resignation at the district meeting, and Dr. R. S. Killough of Amarillo was unanimously selected by the society as Councilor for that district.

The meeting was pronounced a most excellent one and was very well attended. The next meeting of the society will be held at Amarillo, the second Tuesday and Wednesday of April, 1926.

Bell County Medical Society Woman's Auxiliary met at the home of Mrs. G. V. Brindley, at Temple, October 7. Besides the members of the Bell County Auxiliary, six members of the McLennan County society were present, including the district president, Mrs. L. O. Dudgeon. Mrs. Amos Chernosky was in charge of the program.

Dr. R. W. Noble gave an address on "Texas State Medical Laws." Miss Minnie Mae Simpson entertained the auxiliary with a reading. Mrs. A. C. Scott then outlined the year's program and read the report of the Educational Committee, which was unanimously adopted.

A delightful social hour was then enjoyed, during which the hostess served a dainty salad course.

CHANGES OF ADDRESS.

Dr. M. G. Pearce, from Galvestion to Houston.

Dr. T. P. Lynch, from Iowa Park to Wichita Falls.

Dr. Robert I. Tibbs, from Maypearl to Sanatorium.

Dr. C. M. Williamson, from San Antonio to Seguin.

Dr. M. V. Godbey, from San Angelo to Charleston, West Virginia.

Dr. J. A. Rutledge, from Denison to Ada, Oklahoma.

Dr. J. R. Frobese, from Cuero to San Antonio.

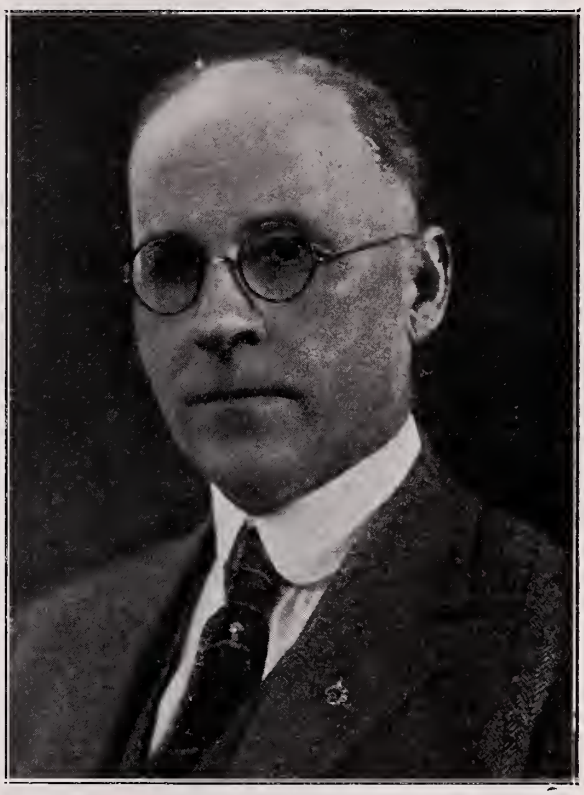
Dr. Johannes Weiss, from Hallettsville to Wharton.

Dr. C. J. Connor, from Franklin to Corsicana.

DEATHS

Dr. James Hiram Eastland died at his home in Mineral Wells, October 21, 1925, after an illness of several months, from pernicious anemia.

Dr. Eastland was the youngest son of Dr. William B. and Helen Mar Terry Eastland, pioneer citizens of McLennan County, and was born in Waco, Texas, February 7, 1876. He received his preliminary education in the public schools at Waco, after which he attended Baylor University, graduating with the degree of Bachelor of Science. He then attended the Medical Department of Vanderbilt University, from which he received his degree in medicine in 1903. He did not, however, attend the University consecutively, but taught school on alternate years. He served for two years as physician at the State Epileptic Colony, Abilene, after which he was consulting physician at the State Asylum at Austin. After a few years service at the latter institution he spent more than a year at the Army Medical School at Washington, D. C., from which place he went to Mineral Wells, where he practiced up to the time of his last illness.



DR. J. H. EASTLAND.

Dr. Eastland was well known for his investigative and scientific attitude, devoting much of his time to research work in medicine. He was greatly beloved by his fellow practitioners, as evidenced by the fact that two years ago he was president of the Northwest Texas District Medical Association, and at the time of his death was president of the Parker-Palo Pinto County Medical Society. He was always greatly interested in organized medicine. Besides being a member of his county and district societies, he had also been, ever since receiving his degree of medicine, a member of the State Medical Association and of the American Medical Association. He

was not only active in the medical profession, but entered with enthusiasm into civic affairs. He was elected the first president of the Texas Unit of the Bankhead Highway Association, later serving as vice-president and on the executive board. He was a charter member of the Mineral Wells Rotary Club and its first president. He was a Mason, a Shriner, and a member of the Woodmen of the World and the Modern Woodmen of America. He had since childhood been a consistent member of the Baptist Church. The Masonic fraternity took charge of the services at the grave.

Dr. Eastland was married to Miss Alfa Jeter of Cameron, while on duty at the Epileptic Colony at Abilene. He is survived by his widow and three children, James, Dorothy and Elizabeth; by one brother, Herman Eastland of Hillsboro, and two sisters, Misses Belle and Josephine Eastland of Oklahoma City.

Dr. H. P. Luckett died at his home at Bastrop, October 14, 1925, after having been confined to his bed for the last seven years, due to a stroke of paralysis in July, 1918.

Dr. Luckett was born at St. Charles, Missouri, May 26, 1847. He was a graduate of the Louisville School of Medicine, and came to Texas in 1867 and began the practice of medicine at Webberville. Two years later, he moved to Bastrop where he practiced for 49 years, and was the honored and trusted medical adviser to hundreds of families in Bastrop. Almost 40 years ago, the Long Medical Society was organized among the local physicians, and Dr. Luckett was a charter member. Fifteen years later the Bastrop County Medical Society was organized, of which he was also a charter member. He was always greatly interested in medical society work, and contributed generously of both time and money in the furtherance of organized medicine. He was for many years a member of the State Medical Association and of the American Medical Association, only relinquishing his membership when he was incapacitated for practice by an attack of apoplexy, in July, 1918, which was followed in two weeks by a second stroke, that confined him to his bed up to the time of his death. He was very prominent in civic affairs, and was a director and stockholder in the First National Bank of Bastrop for 15 years. One of his friends has said of him: "Our tribute to this great man is that he was your friend and mine. He shall linger long in the memory of those whom he has left behind as one who knew the touch of sorrow on others; he realized the pain that death had caused the heart, yet his comforting words always had the same healing power to a grieved heart as his hand had in administering relief to physical pains and sufferings."

Dr. Luckett was married to Miss Fannie Haynie in 1869. He is survived by his widow and one son, Dr. Will Luckett of New York City, four sons having preceded him in death.

Dr. A. J. Baird died at his home at Gatesville, Texas, November 5, 1925, after having suffered for a number of years from cardiovascular disease.

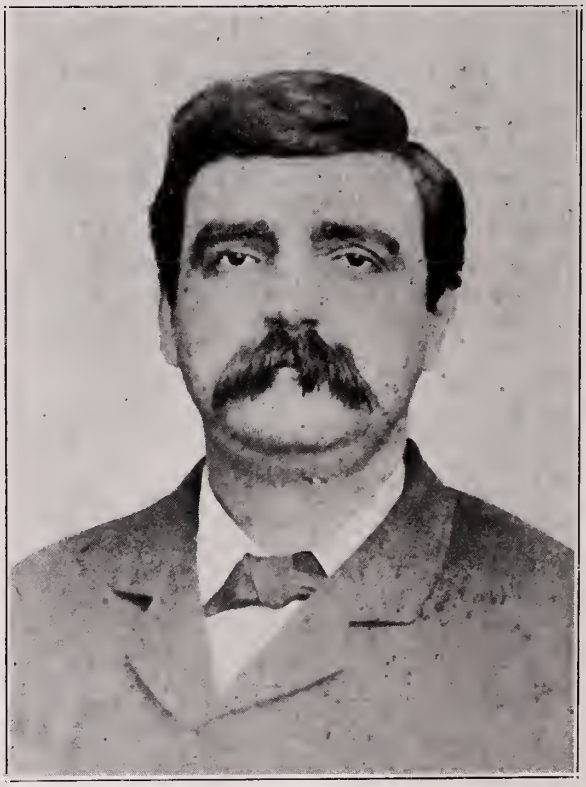
Dr. Baird was born April 12, 1855, in Wilson County, Tennessee. He received his preliminary education in the public schools of that county and at the Southwestern Baptist University of Jackson, Tennessee. He then attended Vanderbilt University, from which he graduated with the degree of M. D. in 1879, and began the practice of medicine at Gainesville, Tennessee. After two years he moved to Texas, locating at Orange, Coryell County, where he continued to practice for twenty-eight years, at the end of which time he retired and moved to Gatesville. He did a general country practice and his services were in demand far and wide. He was held in high esteem by his fellow practitioners of medicine and was a faithful member of Coryell County Medical Society and the State Medical Association, up to the time that ill health forced him to retire from practice.

Dr. Baird was married to Miss Nannie Philips, November 5, 1868. To this union were born five children, one of whom died in infancy. He is survived by his widow and four children, John D. Baird of Wichita Falls, Charles W. Baird of Port Arthur, Mrs. Bernice Stewart of Houston, and Evelyn Baird of Gatesville.

Dr. Baird's last request was that he be buried among his old friends, and so he was laid to rest in the Masonic Cemetery at Gatesville.

Dr. Thomas Moffet Sherman died at Kennard, Texas, September 14, 1925, following an extended illness.

Dr. Sherman was born July 17, 1851, at Macon, Mississippi. He received his preliminary education at Howard College, Marion, Alabama. He then



DR. T. M. SHERMAN

attended the Kentucky School of Medicine at Louisville, Kentucky, from which he received his degree in medicine in June. Upon his graduation he located at Kennard, where he practiced up to shortly before his death. Dr. Sherman has been prominent in professional business and social circles of Houston County for many years, and leaves a host of sorrowing friends and relatives. He was very active in organized medicine, being a charter member of the Houston County Medical Society, of which he was president at the time of his death. He hardly ever missed a meeting of his society, although he lived 19 miles from Crockett. He was also a member of the State Medical Association and of the American Medical Association. He was a member of Colthorp

Lodge, A. F. & A. M., and Trinity Chapter No. 4, R. A. M., Crockett, and he was also a member of the Knights of Pythias and of the First Baptist Church at Crockett. He took an active interest in civic affairs and was one of Houston County's most substantial citizens, being president of the Farmers Guaranty State Bank at Kennard. His funeral services were conducted from the First Baptist Church at Crockett, the Masonic Lodge taking charge of the services at the grave.

Dr. Sherman is survived by his wife, Mrs. Louella Dunlap Sherman; two daughters, Mrs. John D. Morgan of Kennard, and Mrs. C. Latimer of Beaumont, and four sons, J. L. and Thomas Sherman of Houston, David Sherman of Wells, and K. D. Sherman of San Antonio, all of whom were present at the funeral.

BOOK NOTES

The Newer Knowledge of Nutrition, the Use of Foods for the Preservation of Vitality and Health, by E. V. McCollum, Ph. D., Sc. D., Professor of Chemical Hygiene in the School of Hygiene and Public Health, Johns Hopkins University, and Nina Simmonds, Sc. D. (Hygiene); Associate in Chemical Hygiene in the School of Hygiene and Public Health, Johns Hopkins University. The new third edition, revised and rewritten. 8vo., cloth; 675 pages, with bibliography and index; illustrated. Price $4.25. The Macmillan Company, New York, 1925.

A great deal has been written concerning the relative value of various foods. Faddists flourish in this field, and there are extant (unfortunately) many volumes written by quacks and near-quacks for the purpose of enriching themselves rather than of imparting knowledge. Certain well known magazines may be seen at the news stands, that also fall into this unsavory classification. Besides such publications, there are many that have been written with good intentions and by men whose honesty of purpose can hardly be questioned, but whose scientific training was not such as to enable them to speak with authority. The volume under discussion is an antithesis of these, being written by investigators whose training and accomplishments are common knowledge to all interested in the science of nutrition. The historic method of treatment and the inclusion of numerous brief but lucid descriptions of experiments and original work, make the volume a valuable reference work, as well as a very entertaining one. Since the publication of the second edition of this book, two new vitamins have been discovered and much new light has been thrown upon the old question of the role of vitamins in nutrition. These facts have been added in the present edition, as well as much information concerning the relation of diet to tooth decay, eye troubles, sexual functions, rickets, etc., in the light of animal experimentation. Among the new pages that have been added to the book are those on relation of diet to resistance to disease, iodine deficiency and goiter, experimental rickets and calcium assimilation. The chapter on pellagra should be of special interest to the Southern practitioner. Students of pellagra may, however, question the author's conclusions expressed in the statement: "The knowledge of the methods by means of which pellagra can be eradicated is, therefore, quite adequate, and as soon as it can be applied practically, the disease may confidently be expected to disappear in proportion to the extent to which reform in the diet of the population can be brought about." The book is scholarly, authoritative and complete—if that latter term may be applied to any scientific subject.

The Faith, The Falsity, The Failure of Christian Science. By Woodbridge Riley, Ph. D., Frederick W. Peabody, LL. B., and Charles E. Humiston, M. D. A searching expose of the pretensions of Christian Science, constituting a complete religious, moral and medical endictment of Eddyism and its claims. 12mo., cloth, 408 pages. Price $3.50. Fleming H. Revell Company, 158 5th Ave., New York.

This book should be of interest to every practitioner of medicine. The authors of the book discuss Eddyism from the standpoint of philosophy, law and medicine, since all three of these are involved in this so-called science. Original sources of information are cited in the volume and proof of statements given is presented wherever deemed necessary. There is a vein of humor pervading the volume, which makes it entertaining as well as enlightening. No physician can practice any great length of time without observing the disastrous sins of omission and commission practiced by this peculiar cult in the guise of religion, albeit many of the cultists are sincere in their belief, strange as it may seem. The volume is divided into three parts following the three divisions of the title. It would be difficult, if not impossible, to find an author more qualified to write concerning Christian Science than Dr. Woodbridge Riley. The author of the second part into which the book is divided, was one of the distinguished lawyers representing Mrs. Eddy's sons in their equity suit in which their mother's sanity was questioned. The third part, written by Dr. Humiston, Professor of Surgery of the University of Illinois College of Medicine, presents some of the numerous cases showing the tragic results of Christian Science treatment of helpless adults and still more helpless children, gathered from a nation-wide questionnaire. It would doubtless be a wise plan for this book to be on the reception room table of every practitioner of medicine in the land, but it is doubtful if it would remain there long.

The Iconography of Andreas Vesalius. Anatomist and Physician, 1514-1564. Paintings, Pictures, Engravings, Illustrations, Sculpture, Medals, with Notes, Critical, Literary and Bibliographical. By M. H. Spielmann, F. S. A., Chevalier de l'Ordre de Leopold, Officer de l'Ordre de la Couronne de Belgique. Royal 8vo., cloth, 234 pages, six chapters with extensive bibliography, list of authors and index. Price, 30 shillings net. John Bale, Sons & Danielsson, Ltd., publishers, Oxford House, 83-85-87-91 Great Titchfield Street, London, England.

This very unusual book published under the auspices of the Wellcome Historical Museum as No. 3 of their Research Studies in Medical History, should be a rare treat to the lover of history as well as to the connoisseur of art. In this volume are collected all the known portraits, whether paintings, engravings, or medals, and all the busts and statues of the great father of anatomy, Andreas Vesalius. The book opens with forewords written by Paul Heger, of the University of Bruxelles; Arthur Keith, of the Royal College of Surgeons of England; Harvey Cushing, of Harvard and Johns Hopkins Universities, and Tricot-Royer. These are followed by an introductory note and acknowledgments by the author. The table of contents and a complete classified list of illustrations follows. The first chapter deals with the wood-cut portrait of Vesalius, which appeared in the first edition of the Fabrica. This picture is perhaps the best known of all the likenesses of the great Belgian

anatomist, and can be found on the wall of many a doctor's office and study. Chapter II, which is necessarily the most extensive chapter in the book, concerns "Portraits in Oil," both those known to be of Vesalius and those that have been held to be his likenesses. Chapter III describes the Pictures and Drawings; Chapter IV, the Engravings; Chapter V, Sculpture, and Chapter VI, Portrait Medals. Following the concluding chapter is an extensive Bibliography, a List of Authors and a general Index. Besides the 68 full-page half-tone illustrations in sepia, there are numerous well-executed illustrations in black. An effort has been made to include a copy of every likeness of Vesalius known to exist. Among other illustrations is a photograph of the oil painting which was destroyed as an act of war in the massacre of Louvain. It is fortunate, indeed, that this excellent photograph was made before the original was so ruthlessly destroyed. For those who desire first hand historical information and who like to delve into original sources, this beautiful and scholarly work of Spielmann's should open up an extraordinary field.

Diseases of the Bronchi, Lungs and Pleura. By Frederick T. Lord, M. D., Visiting Physician, Massachusetts General Hospital; Instructor in Medicine, Harvard Medical School. Second edition, thoroughly revised, with the addition of a chapter on Pulmonary Tuberculosis. 776 pages, 8vo., cloth, 42 chapters. 107 engravings and 3 color plates. Price, $8.00. Lee & Febiger, Philadelphia and New York, 1925.

This masterful work on lung diseases has enjoyed a well deserved popularity. The present edition contains numerous important additions, including a chapter dealing with pulmonary tuberculosis in its varied aspects. The advances made in the field of bronchoscopy have necessitated a chapter on this important subject. The work of Castellani on bronchomoniliasis and bronchospirochetosis is recognized by two brief chapters devoted to these subjects. The chapter on atelectasis is especially interesting and contains the very latest thought on this important subject. The value of the Röentgen-rays in the study of lung diseases is also forcefully brought out throughout the volume, many cuts prepared from röentgenograms being included among the excellent illustrations contained in the book. The comparatively new field of thoracic surgery is given full recognition in this volume, which is a worthy successor to its appreciated first edition.

Medical and Surgical Report of the Roosevelt Hospital, New York City, Second Series, 1925, based on the years 1915-1924, inclusive. 8vo., cloth, 370 pages, 34 chapters with index, 47 illustrations. Price, $5.00. Paul B. Hoeber, Publisher, New York City, 1925.

Those who have enjoyed the first Medical and Surgical Report of the Roosevelt Hospital, which was published in 1915, will doubtless especially welcome the appearance of the present volume. The 34 chapters into which the book is divided are independent essays of cases treated in the Roosevelt Hospital since 1915, and include a wide variety of conditions, interesting alike to the surgeon, the internist and the specialist. There is probably no better way to give an idea of what the book contains than to simply give the table of contents, which is as follows: I, Fractures of the Elbow; II, Technique of Partial Colectomy by the Mikulicz Two-stage Method; III, The Advantages of the Mikulicz Two-stage Operation of Partial Colectomy; IV, The Relationship Between Certain Forms of Intestinal Obstruction, Chronic Peritonitis and Chronic Multiple Serositis; V, The Surgical Treatment of Megacolon; VI, Report of the Results of Operation on a Group of Cases of Goiter; VII, Lead-pipe Fracture of the Radius; VIII, Traumatic Osteomyelitis; IX, A Large Mycotic Embolic Arteriovenous Aneurysm of the Femoral Vessels; X, Non-protein Nitrogen and Blood Pressure in Relation to Kidney and Heart Lesions; XI, Organization of Pneumonic Exudates; XII, Two Classifications of Bright's Disease; XIII, The Diagnosis and Treatment of Pyelitis in Infancy and Childhood; XIV, Bacterial Content of Urine with Special Reference to Pyelitis; XV, Recovery After Postoperative Tetany Treated with Calcium Lactate; XVI, Report of a Case of Intractable Vulvar Ulcer (Esthiomene) Cured by Proteus Vaccines; XVII, Functional Tests of the Circulation and Their Significance; XVIII, Hypertension and Hyperglycemia; XIX, A Case of Cerebellar Abscess with Operation and Recovery; XX, Influences of Extrarenal Factors on the Renal Functional Test Meal; XXI, Carcinoma of the Colon; XXII, Chronic Duodenal and Gastric Ulcer; XXIII, Tuberculous Cyst of the Spleen: Splenectomy, Recovery; XXIV, Acute Suppurative Pleurisy; XXV, Tumors of the Breast; XXVI, Extrauterine Pregnancy; XXVII, Tuberculous Dactylitis; XXVIII, Cancer of the Large Intestine; XXIX, A Contribution to Ecchincoccus Disease of the Kidney; XXX, A New Method of Interpretation of the Renal Function Test Meal; XXXI, Methods and Results of Treatment of Fracture of the Femoral Shaft; XXXII, End Results of 201 Cases of Carcinoma of the Cervix; XXXIII, Clinical Records with Autopsy Reports of Pulmonary Cases; XXXIV, Breast Tumors.

The book is printed on excellent paper with large, clear type, and the numerous cuts are excellent, both from the standpoint of execution and printing.

Feeding and the Nutritional Disorders in Infancy and Childhood. By Julius H. Hess, M. D., Professor of the Department of Pediatrics, University of Illinois College of Medicine; Chief of Pediatric Hospital, Cook County; Attending Pediatrician to Michael Reese and Englewood Hospitals, etc. Fourth edition, revised and enlarged, 8vo., cloth, 556 pages, illustrated with 42 engravings and 1 full-page color plate. Price, $4.50 net. F. A. Davis Company, Publishers, Philadelphia, 1925.

The previous editions of Dr. Hess's volume on feeding and nutritional disorders of infancy and childhood have received wide recognition. The great pediatric institutions with which Dr. Hess has for so many years been connected have afforded him an unusual experience for careful and scientific observation of children and their digestive disorders. From this wide experience Dr. Hess has drawn his conclusions which are presented in this volume in a very succinct and readable form. Extensive revision of the previous edition has brought the book up to date. Important studies in metabolism which have profoundly influenced nutrition in general have been given due recognition. The chapters on Vomiting, Colic and Flatulence, Constipation, and Abnormal Stools, have been thoroughly revised. The most recent development in the study of rickets, scurvy, spasmophilia, acidosis and anemias of infancy, have been included in the chapters dealing with those subjects, while a chapter on Celiac Disease has been added. The book is well illustrated and contains many tables and charts which should be of value to the pediatrician.

Red Cross Needs You

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Merry Christmas!—Back to the old slogan; there is none better! The JOURNAL management and the office force wish for the readers of the JOURNAL the merriest and best Christmas ever.

This is unquestionably the one season of the year when everybody can be happy, as in the matter of comfort, happiness is relative. We recall an experience at the Front during the latest unpleasantness, which is illustrative of this fact. In a precipitate advance we found ourselves under the necessity of remaining at a certain road crossing throughout the night. It was, of course, raining. We were wet, hungry and cold. There was no shelter. We slept for a time quite comfortably by the side of the road, with no other covering than our overcoat and our tin hat, with our musette bag as a pillow. We had picked a grassy, muddy spot because it was soft and comfortable. We would not seek such a bed this Christmas, but as we remember the circumstances we enjoyed our rest. No matter what the conditions confronting us we can partake of the Christmas spirit to our at least temporary betterment. And it is that thought that we wish to convey to our readers. No doubt there are those who are dispirited; there are those who suffer, and there are always those who are overworked. Some of these cannot in the nature of things be hilarious, or as happy as others more favorably situated, but, as we say, happiness is relative and there is always to spare for those who will have it.

> "As in the midst of battle there is room
> For thoughts of love, and in foul sin for mirth;
> As gossips whisper of a trinket's worth
> Spied by the death-bed's flickering candle-gloom;
> As in the crevices of Caesar's tomb
> The sweet herbs flourish on a little earth:
> So in this great disaster of our birth
> We can be happy, and forget our doom."
>
> —*George Santayana.*

Christmas is a peculiar institution. It is a religious observance, if we may judge by its designation. But as ordinarily considered it commemorates a spirit rather than a deity—that spirit which bespeaks peace on the earth and good will among the inhabitants thereof. Could we all be happy and peaceful, the celebration would indeed be justified. There certainly can be good will. And, as we say, the rest of it is relative in its application to ourselves. Perhaps the great bulk of our people do not at all consider Christmas as a religious observance; certainly, not as one involving serious thought and marked solemnity. The Christmas chimes are signals of joy and happiness; they inspire to song and laughter and good deeds. Here, as a matter of fact, is where the Christian phase of the celebration joins hands with a pagan observance. We presume that even a non-believer may have in his soul that sensitiveness which responds to the psychology of this great occasion we call the Christmas. At any rate, and this is what we are trying to say, now is the time to

be happy; we all want to be happy and we cannot be happy until we make each other happy, to paraphrase a popular song.

Perhaps we should not entirely abandon the serious thought that should go with the Christmas. Henry Van Dyke tells a beautiful story of a wise man in addition to the three of which the Bible speaks. This wise man had heard of the Messiah, and because of his study of his own religion he was led to believe that the prediction would be fulfilled, and being an astrologer by virtue of his religious study, he had figured accurately as to the time. He had arranged to join the three wise men at a certain time following the appearance of the predicted sign, and sought to persuade certain of his brethren to go with him. They refused to be led into such a quest, and the wise man went on his way. He was delayed in his journey by the necessity of attending to a very sick man of the race from which the Messiah would come. He failed to join the caravan as intended and made his own way, which is the balance of the story. The benediction of the sick Jew is worthy of the medical profession, and we sincerely trust and believe that the medical profession is worthy of the benediction. The sick man had been told whither his benefactor was bound and the importance of the journey. His blessings concluded with these words:

"May the Lord bring you in safety to that place, because thou hast had pity on the sick."

Christmas Health Seals and the Christmas Spirit have come to be almost synonymous terms, for the former is beautifully emblematic of the latter. What Christmas spirit could be finer than that which seeks to create not only happiness among our fellows, but good health, that chief promoter of happiness and, indeed, to offer life itself to countless thousands. The Christmas seals, this year, are unusually attractive in appearance. They depict two gleaming candles set in the holly and mistletoe, traditional of the holiday season, while centrally placed between the two burning tapers is a double-barred red cross, known the world over as the official emblem of the international crusade against the Great White Plague. Below is the date 1925, and the legend: "Merry Christmas and Good Health." After the passage of over nineteen centuries since the humble shepherds heard from the starry skies the first Christmas carol, the whole world now hears from the heavens the glad tidings of Christmas, and the message of the Christmas Health Seals.

There has been recently broadcasted from a number of stations a beautiful message of good cheer, portraying very vividly the good work that has been accomplished through the sale of Christmas Health Seals. It would be a fine thing, indeed, if every letter and package during the holiday season should bear one of these tiny health seals, in order that its twinkling candles might shed health and happiness to whatever corner of the world that they might go.

"How far that little candle throws his beams!
So shines a good deed in a naughty world."

Thus wrote Shakespeare more than three hundred years ago. At the time that the great Stratford bard expressed this beautiful thought, the length of the average human life was only a little more than thirty-three years. Since that time twenty-one years have been added to the average man's life, and seven of these reclaimed years have been added since the first Christmas Health Seals appeared, some eighteen years ago. How impossible it would have been for that humble Danish postal clerk to have even imagined the great movement he was instituting when he secured permission of his gracious sovereign, Queen Wilhelmina, to sell Christmas seals for the purpose of building a tuberculosis sanatorium for children.

The Texas Public Health Association, which is the representative in Texas of the National Tuberculosis Association, has re-

ceived 30,600,000 Christmas Health Seals to be sold in this State. It has been estimated that if these tiny seals were placed end to end, they would reach from Longview to Laredo, a distance of 483 miles. The work of the Texas Public Health Association is supported almost entirely from funds resulting from the sale of these health seals. During the present year over 170,000 persons, exclusive of the large centers of population, received messages of health, nearly 8,000 school children were given complete physical examinations and 45,000 children were taught health habits through the Modern Health Crusade; and this is but part of the work made possible by the sale of Christmas Seals. Nearly a quarter of a million pieces of health literature were distributed throughout the State. A Mexican and a negro lecturer worked among members of their respective races. It is estimated that there are at present 72,000 active cases of tuberculosis in Texas. The fight must go on!

The annual death rate from tuberculosis in the United States has been reduced from 300 per hundred thousand population some years ago to 90 per hundred thousand in 1924. What a saving of human life! What an incalculable economic gain! The doctor is contributing of his time, his effort, and his means almost daily in the fight against that arch enemy of mankind, tuberculosis, but knowing the doctor as we do, we do not for a moment doubt but that he will "pile Ossa upon Pelion" and buy even more than his share of Christmas Health Seals.

The Battle Against Tuberculosis continues unabated. There can be no armistice, for Tuberculosis is one of the cohorts of Death, that ancient enemy against whom not only the medical profession, but all mankind, have ever waged a losing fight. However, we are heartened by the knowledge that progress is being made in the warfare against the Great White Plague. Especially is this true in the United States, where the death rate from tuberculosis is now less than a third of what it formerly was. Just how much of this gain is due to preventive medicine and how much to curative medicine would be difficult to estimate; the good results obtained are undoubtedly the effect of both.

The more the public understands the real facts that have been discovered concerning tuberculosis, the nearer to the solution of the problem we will be. In the past, two of the most important allies of tuberculosis have been those foster sisters, ignorance and superstition. As long as the public believed that tuberculosis was hereditary, or that it was the visitation of divine punishment, the consumptive and his family resigned themselves to the supposed inevitable with a fatalism that precluded all constructive effort. To pronounce an individual tuberculous was considered a sentence of death. When a tuberculous individual recovered, his very recovery was held to impeach the diagnostic ability of his physician. Even after the bacillus of tuberculosis was discovered and was definitely proven to be the cause of tuberculosis, these facts were accepted with amazing hesitancy, even by the medical profession. It is not a cause for wonder, therefore, that the public has been even harder to convince.

As yet, no specific treatment has been evolved for tuberculosis. The chief weapons against the disease still remain those so well set forth by Dr. Edward Livingston Trudeau: "Rest, fresh air and nourishing food." Not only must tuberculous patients be taught how to get well and remain well, but they must be instructed in how to prevent themselves from being sources of danger to others. The constant aim of the modern clinician is to make as early a diagnosis of tuberculosis as possible. One eminent authority has said, "Every tuberculous patient has had a chance to recover from the disease sometime during its course." Many and varied have been the specific treatments directed against tuberculosis. When Koch made his first reports concerning the immunizing properties of tuberculin, it was thought that the problem had been solved. Many of those who specialize in the treatment of tuberculosis do not use tuberculin at all, today. Whatever may be its proper place in the therapy of the disease, it is certain that it is not the specific that it was once believed and hoped to be.

Every one is familiar with the turtle serum fiasco of a few years ago, which was

accompanied by the usual amount of exaggerated claims made through the press. Similar publicity was given the Mollgaard Sanocrysin tuberculosis remedy, and the usual reports of the rapid cure of advanced cases of tuberculosis by this remedy were current in the newspapers. It is noted, however, that Dr. Mollgaard did not attempt to capitalize on his remedy as did the proponent of the turtle serum. Thus far the United States Public Health Service has not seen fit to license this treatment to be sold in the United States.

In the December, 1921, issue of the JOURNAL, attention was invited to the work of Professor A. Calmette, assistant director of the Pasteur Institute of France, in perfecting a serum, which, "if injected into human veins, especially in children of tender years, absolutely insures immunity from tuberculosis in any form." This work was done principally on calves, guinea pigs and rabbits. The World War interrupted the work, which has in recent years again been taken up, and a series of experiments have been carried out, in which the bacillary vaccine prepared by Calmette and Guerin and designated as BCG., has been employed. A series of experiments have been carried out on the coast of French West Africa, under the auspices of the Pasteur Institute of Kindia. Anthropoid apes have been used as experimental animals, and these have been kept as nearly as possible in their natural environment. Fifteen chimpanzees, according to J. Wilbert (Annals D.l' Institute Pasteur, volume 39, page 641, August, 1925), were studied in three groups. Three of the number were vaccinated with BCG., five were infected with virulent tuberculosis bacilli, and there were seven unvaccinated control animals. The vaccinated and unvaccinated animals were equally exposed to infection from those artificially infected. The results of these experiments were that the five infected chimpanzees all died of tuberculosis, while of the seven unvaccinated controls four died of tuberculosis and three of intercurrent non-tuberculous infection, while all three of the vaccinated animals remained in good health.

In another experiment performed under similar conditions, fifty-nine apes were used in the test. Of these, nineteen were vaccinated with BCG., twenty were infected with virulent tuberculosis bacilli and twenty served as noninfected, nonvaccinated controls. Eleven of the vaccinated apes died of various causes without showing postmortem evidences of tuberculosis, while the other eight remained in good health. Nineteen of the twenty nonvaccinated controls died of tuberculosis and one of intercurrent acute infection. All twenty of the infected animals died, nineteen of them from tuberculosis, and one from intestinal obstruction. Subcutaneous inoculation and ingestion methods of vaccinating proved equally effective. Fifty milligrams of the vaccine were given by subcutaneous inoculation and five portions of fifty milligrams each were given by ingestion at intervals of from eight to ten days. The results of these experiments are being watched with great interest. No extravagant claims have been made for this method of treatment by those responsible for the experiments that are being carried out. It is obvious that the aim of these endeavors is toward the vaccination of man against tuberculosis. Whatever the outcome may be, we are convinced that those who are carrying out this carefully planned work are as unselfish as they are scientific, and they are to be commended for their *enthusiastic* conservatism.

Meanwhile, in spite of the fact that "sure cures" for tuberculosis continue to be heralded in the press, at least at the rate of one a month, the scientific treatment of tuberculosis that has been proven to be remarkably effective against the disease, continues to be the great triumvirate of Trudeau, "rest fresh air and nourishing food." To these we should possibly add a fourth—a cheerful spirit.

Changes in the Official Family. — The President announces the resignation of Dr. A. F. Lumpkin of Amarillo, councilor for the Third District, and the appointment of Dr. R. S. Killough, also of Amarillo, to fill the unexpired term. Dr. Lumpkin agreed to assume the duties of councilor for his district upon the request of his district medical society. Dr. Killough was not able to attend the session at Austin this year and could not, therefore, be reëlected at the expiration of his term of office. It seems that Dr. Lumpkin has reached the point where he cannot, because of press of other affairs, give the time and attention the office requires, and his district society was asked to agree to his resignation and nominate to the President his successor in office. The district society acquiesced and recommended Dr. Killough. President Dr. Rosser approved of the decision of the district society; the resignation of Dr. Lumpkin was regretfully received and the appointment of Dr. Killough gladly made.

We feel that the State Medical Association would be in safe hands with either of these splendid members in charge of its interests in the great Panhandle of Texas, and we

think the profession will agree with us that this is at least one dilemma that is not disagreeable; either horn of it will prove satisfactory.

The untimely and deeply regretted death of Dr. J. H. Eastland of Mineral Wells, vacated the office of Chairman of the Section on Medicine and Diseases of Children. The President has been slow to appoint a successor to Dr. Eastland, appreciating fully the importance of this section and consequently of the office. He now directs us to announce the appointment of Dr. Boyd Reading of Galveston, to succeed Dr. Eastland, and we do so with much pleasure. Dr. Reading is Professor of Pediatrics in the Medical Branch of the University of Texas, and is widely and favorably known to the medical profession of Texas, the South and the Nation. He is a young man, claiming as the date of his birth the very recent year of 1890. He is a graduate of the Medical Branch of the University of Texas, in the class of 1914. He is a Fellow of the American Medical Association and holds membership in numerous scientific and fraternal organizations. He will render due returns on the appointment, we are sure.

The Dallas Meeting of the Southern Medical Association was flatteringly and entertainingly successful, to be modest in our estimate of the situation. We are very much inclined to say, "We told you so." When Dr. Cary presented his invitation to hold this meeting in Dallas there was some objection, as there was to the proposal to hold the 1915 meeting in Dallas and, as before, Dr. Cary guaranteed the necessary number of new members to insure at least an average good attendance. Perhaps we should admit that he promised more than that, which is the way Texas doctors usually do things. In fact, he promised 600 new members and an attendance equal to any the Association has ever held. The promise looked big, but the profession of the South has faith in Texas, and the profession in Texas has learned to depend on the Dallas County Medical Society for anything that it promises to do or may be expected to do.

We have the tentative report of the secretary of the Southern Medical Association before us, and it is indeed gratifying; in fact, it is just a bit astonishing. At the time of the preceding meeting, at New Orleans, there were 927 members from Texas. By the time the Dallas meeting was held the membership from Texas had mounted to 1647. Since the Dallas meeting and up to the date of the report (November 23, 1925), ten members have been dropped for non-payment of dues, which leaves a total of 1637, a net gain of 710 members, which is 110 members above and beyond the promise made by Dr. Cary.

The total registration of members at the meeting was 2,042. Of these, 1,205 were from Texas, and of this number 310 were from Dallas. If our own state meeting could make a percentage of attendance such as that, our usual 1,000 registration would go well past the 2,000 mark. The next largest registration, which is also a remarkable record, was from Oklahoma with a total of 213, and the next, as might have been expected, was from Louisiana, with a total of 103. Then comes Tennessee with 82, Arkansas with 78, Alabama with 60, and so on down the line. In addition to the members who registered, there were 144 medical students, 170 exhibitors, etc., and 513 visiting ladies, making a total registered attendance on this session of 2,869. That is the biggest attendance, we believe, the Association has ever held. To make it good measure, we believe it is customary to add about 7 per cent to the registered total on such meetings as this, to cover those who come and go and do not bother to register, which would throw the attendance well above 3,000.

We can talk about the attendance and the credit due us for boosting membership without embarrassment, but we must say little about entertainment, that being a more personal matter. However, most of us not having had to do with the matter of entertainment, we can say something. That something is that if anything was left undone we could not think of it—that is, anything that could reasonably have been expected. Our observation was that everybody was happy, and being happy there was little else to be desired in the matter of entertainment.

Our pleasure is great that our promises of an instructive and entertaining meeting have been verified. We have talked with many of our members who had never before attended one of the meetings of the Southern Medical Association and we have not yet found one who was in the least critical, and the verdict has been unanimous that nothing more could have been desired in this particular. The intimate, frank and genial atmosphere prevailing throughout the sections during the annual sessions of this splendid organization, was quite wholesome and appealing.

To those who came to visit us we can only say that we are glad they came and trust we will have another and early opportunity to entertain them. They have pleased us greatly, and we sincerely trust they enjoyed their visit.

Our Publicity and Law Enforcement Campaign A Continued Story.—As we have stated before, it is our purpose to continue to devote editorial space and attention to the Publicity and Law Enforcement Campaign at the present time being conducted by the State Medical Association in support of the State Board of Medical Examiners. Beginning with the July number of the JOURNAL the story has continued up to the present time, in much greater detail than we at first intended. As the campaign developed it became evident that special effort should be made to keep our members informed, and the editorial columns of the JOURNAL seemed the best medium for that purpose. Incidentally, as we have said before, posterity may want to know something of the details of this battle, which is second in importance to none that the State Medical Association has ever participated in. Beginning with the passage of the Medical Practice Act in 1907, and the activities leading up to that momentous event, the fight has been almost continuous, and may be divided into several distinct phases, of which this, as we say, is not the least important. Whether we shall persist until victory is complete and whether victory shall rally to our banner, may be a matter of prediction which the future alone will determine, but it is our present firm intention to continue the campaign until our people are properly protected in the important matter of their health and mental and physical well being.

Prosecutions are being persisted in throughout the State, with satisfactory results, all told. There have been a few failures to convict, but only one failure where the case was conducted by one of our trained prosecutors. It is an extremely difficult matter to convince the average person that the point at issue in a trial of this sort is not whether the individual under prosecution has been successful in his endeavor, or has injured or benefited his patient, but rather whether he has complied with a very reasonable and just law, and that the court room is no place for a clinic to determine the value of the particular method of practice affected by the defendant. In the nature of things procedure along clinic lines would never determine anything. Doctors have been pitting their successes in the practice of medicine against the successes of other doctors from the beginning of time, and no scientific principles have ever been proven by this method

Does Your Doctor Know?

ANY PERSON who makes it his business to treat you when you are sick ought to know what he is doing. To give you good service he ought to know about the human body. He ought to know what makes you sick. You have the right to demand that he know his business. Here are the things he must know for your safety. Your State protects you by requiring your doctor to pass a fair examination in the following subjects:

Anatomy

Anatomy is the study of the body's parts such as the heart the stomach, the intestines, the liver, the kidneys, etc Your doctor must know the parts, else he can't put them back in order There is no such thing as "medical" anatomy or anatomy from any standpoint except the **Human** standpoint. **Human** anatomy is a science your doctor must know.

Bacteriology

Bacteriology is the study of germs and microbes which cause many, many diseases. Bad colds, flu, diphtheria, pneumonia, smallpox, typhoid fever, tuberculosis and spinal meningitis are examples There are no such things as "medical" germs **Disease-producing** germs must be familiar to your doctor, else he can't be sure what disease you have.

Histology

Histology is anatomy under the microscope. The body is composed of millions of tiny cells which are too small to be seen with the naked eye The study of histology enables your doctor to know the body's fine points. There is no such thing as "medical" histology **Human** histology is necessary for your doctor to know if he really and truly knows the body

Physiology

Physiology is the study of how the parts of your body work, how the organs function. Digestion is an example. There is no such thing as "medical" digestion or physiology from any standpoint except the **Human** standpoint **Human** physiology must be understood by any person who treats the disordered body.

Gynecology

Gynecology is the study of the diseases peculiar to the female sex. Women have a different anatomy from men. There is no such thing as "medical" gynecology. **Human** gynecology must be understood by your doctor else he can't relieve and cure women suffering with female troubles.

Chemistry

Digestion is a chemical process. Diseases cause chemical changes in the body and in the blood. Poisons produce chemical changes in the body There is no such thing as "medical" chemistry. **Nature's** chemistry should be understood by your doctor, else he will be helpless many times in fighting diseases.

Pathology

Pathology is anatomy and physiology gone wrong An ulcer in your stomach is an example There is no such thing as "medical" pathology or pathology from any standpoint except the standpoint of disease. **Human** pathology must be known by your doctor else he can't overcome your trouble.

Obstetrics

Obstetrics has to do with motherhood and childbirth. There is no such thing as "medical" obstetrics or obstetrics from any standpoint except the **human** standpoint. **Human** obstetrics must be familiar to doctors for they bring the next generation into this world.

Hygiene

Hygiene is the science of keeping you well There is no such thing as "medical" hygiene. Your doctor should know hygiene in order to prevent filthy diseases. Hygiene tells him to keep things sanitary and clean, so as to prevent the spread of disease and keep you well.

Diagnosis

Diagnosis is the analysis of your trouble. Your doctor studies your symptoms—the facts in your case They tell him what is the matter with you. There is no such thing as "medical" diagnosis. Your doctor must know how to interpret facts, else he can't know what your trouble is. If he can't diagnose your trouble—can't read the facts—he can't know whether his treatment will cure or kill you.

Surgery

Surgery may be called human carpentry. Removing an appendix is surgery. Setting a broken bone is surgery Replacing a dislocated bone is surgery. There is no such thing as "medical" surgery Your doctor must know **human** surgery else he can't help you when surgery is the best remedy He may not practice surgery, but he should know something about it so he can advise you when your case requires surgery.

Medical Jurisprudence

Medical jurisprudence is the law regarding you and your doctor's relation. Injured persons have legal rights to collect damages. The insane have legal rights protected by law Your doctor should know medical jurisprudence in order to look after your rights when you are injured, unconscious and helpless.

The Sick Room Is No Place for Ignorance

No Examination On Methods Of Treatment

When you or your family are sick and call a doctor or go to see one, you want quick, safe and successful service, whether it be by using drugs or without drugs. You are not able to examine your doctor on these necessary subjects. Your state has set up a standard consisting of a fair examination on these subjects It is not a medical examination in the drug sense The examining board asks no question about the drug system or any other system of getting people well. When your doctor passes this examination he may treat you by any method his judgment tells him is best for your particular case. He is left free to do what the conditions of your case require He may use drugs, surgery, massage, electricity, diet, or any remedy which will help your individual case.

One Standard, One Law, One Board

The medical practice act applies to all practitioners alike and is for the protection of all the people. A high standard for some practitioners and a lower one for others would discriminate in favor of ignorance. Certainly no separate board should be created to examine on the body and its diseases from the standpoint of any system of practice. There is only one true standpoint—the **scientific human** standpoint. The man who can not reach this safe standard certainly ought not to ask to have his ignorance excused Trained and capable men make mistakes at times. How much more, then, should ignorance be guarded against! Demand that your doctor obey the demand of your State to qualify before he practices. Past Legislatures have refused to let down the bars that protect you and your family. Others will continue to maintain the same patriotic sense of duty.

State Board of Medical Examiners **State Medical Association of Texas**

County Medical Society

Each member of this society has met the scientific demands of your State, has obtained a license and has it on record with the District Clerk as required by law.

FIG. 1—One of several new display ads in support of the publicity and law enforcement campaign, which is proving very effective. It strikes at the basic argument offered by the cultists for exemption from the Medical Practice Act. It demonstrates clearly that there can be no argument about the fundamental science of medicine and that all who would practice the healing art should be informed on each of them. It emphasizes three of the principal factors of the campaign, namely, that the sick room is no place for ignorance; that there is no examination under the present law on methods of treatment, and that there should be one standard, one law and one board for all.

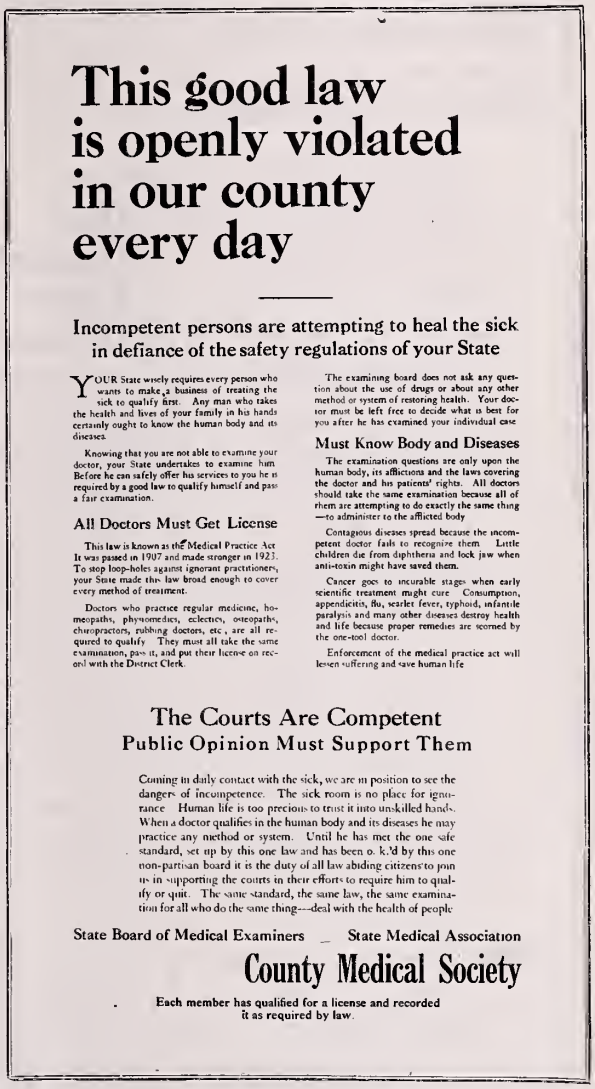
alone. Clinical experience is of value in connection with scientific observations and experiments, of course, but in order to make them of worth, certain very definite rules must be observed in their compilation. We cannot expect the layman to understand these matters, even the educated layman of the law, and thus a handicap must be overcome. Sometimes the court has been personally misled by this very factor and is, therefore, not in a position to rule without bias in a case of this character. That is unfortunate but very human. It is aggravating but we cannot afford to be peeved about it. The answer is to continue until the dawn; and the dawn will most certainly come if we continue, and whether or not we continue, the difference being that we may not be present to welcome it.

Even in the face of failure a trial properly conducted is educational. In the one failure we have had where there was no flaw in the procedure from our standpoint, the prosecution has seemed greatly satisfied because of the opportunity given to educate a large court room full of people, who came for the most part in support of the poor, down-trodden and abused philanthropist at the bar. There is every reason to be encouraged and none for discouragement.

Some additional advertising matter has been composed and used to advantage in the publicity part of the campaign. We are reproducing here several new ads, some of which are an improvement over others that have gone before and which have covered much the same ground. Some of them very definitely answer some of the most telling arguments of the opposition without participating in direct controversy. That, of course, is the proper system.

County societies are generally accepting the division of labor in this campaign, suggested by the committee in charge. The State Medical Association defrays all of the overhead and pays the salary and defrays the expenses of special investigators, eventually furnishing trained prosecutors at points where it seems that conditions are hard to meet or where it is particularly desirable to make sure of success. The county society pays the expense of the supporting publicity, usually along the so-called roster plan, in which arguments in favor of the enforcement of the Medical Practice Act are coupled with the publication of the society membership, all members being, of course, qualified and legalized practitioners of medicine. The county society at the same time warns the public of the employment of medical advisers who have not demonstrated satisfactory qualifications for such service, and points to those whom it knows have made such demonstration to the satisfaction of the State, and without any arguments as to extraordinary personal ability of any of them.

The opposition has not been so active in its paid publicity as heretofore, if our clipping bureau and reports have served us adequately. We are reproducing here two such ads which appear to be worthy of note. We hope these and the ads in support of our own position are legible, and that our readers will take the trouble to compare them as to contention and probable effect on the unbiased reader.



This good law is openly violated in our county every day

Incompetent persons are attempting to heal the sick in defiance of the safety regulations of your State

YOUR State wisely requires every person who wants to make a business of treating the sick to qualify first. Any man who takes the health and lives of your family in his hands certainly ought to know the human body and its diseases.

Knowing that you are not able to examine your doctor, your State undertakes to examine him. Before he can safely offer his services to you he is required by a good law to qualify himself and pass a fair examination.

All Doctors Must Get License

This law is known as the Medical Practice Act. It was passed in 1907 and made stronger in 1923. To stop loop-holes against ignorant practitioners, your State made this law broad enough to cover every method of treatment.

Doctors who practice regular medicine, homeopaths, physiomedics, eclectics, osteopaths, chiropractors, rubbing doctors, etc., are all required to qualify. They must all take the same examination, pass it, and put their license on record with the District Clerk.

The examining board does not ask any question about the use of drugs or about any other method or system of restoring health. Your doctor must be left free to decide what is best for you after he has examined your individual case.

Must Know Body and Diseases

The examination questions are only upon the human body, its afflictions and the laws covering the doctor and his patients' rights. All doctors should take the same examination because all of them are attempting to do exactly the same thing—to administer to the afflicted body.

Contagious diseases spread because the incompetent doctor fails to recognize them. Little children die from diphtheria and lock jaw when anti-toxin might have saved them.

Cancer goes to incurable stages when early scientific treatment might cure. Consumption, appendicitis, flu, scarlet fever, typhoid, infantile paralysis and many other diseases destroy health and life because proper remedies are scorned by the one-tool doctor.

Enforcement of the medical practice act will lessen suffering and save human life.

The Courts Are Competent
Public Opinion Must Support Them

Coming in daily contact with the sick, we are in position to see the dangers of incompetence. The sick room is no place for ignorance. Human life is too precious to trust it into unskilled hands. When a doctor qualifies in the human body and its diseases he may practice any method or system. Until he has met the one safe standard, set up by this one law and has been o. k.'d by this one non-partisan board it is the duty of all law abiding citizens to join us in supporting the courts in their efforts to require him to qualify or quit. The same standard, the same law, the same examination for all who do the same thing—deal with the health of people.

State Board of Medical Examiners — State Medical Association

County Medical Society

Each member has qualified for a license and recorded it as required by law.

FIG. 2.—Another effective ad in connection with the law enforcement and publicity campaign, recently composed. It contains, very briefly, and yet most directly, the basic argument around which there can be no devious route, in support of the contentions of the medical profession in this campaign. It recites the evident fact that the courts are able to handle the situation but must have the support of the public, else there will be failure, with the consequent continuation of the present harmful and ridiculous state of affairs as relates to both the prevention and cure of disease.

The Reaction of the Press. — While the press as a whole is not nearly so friendly to the form of quackery against which we are contending, there is still much apprehension and some little active and vicious support. While we do not choose to make invidious comparisons, it is a fact that the tail of a snake is sometimes active a long time after the spirit of the snake has passed to its reward. The management of a newspaper may decide upon a change of policy, but that decision does not at once change the reaction of each reporter on its staff, and of each correspondent. We have seen most laudatory editorial references to our endeavors in the same issue of a newspaper which carried news items replete with misinformation, very ingeniously composed so as to support the contentions of the opposition. Such items are doubtless the result of a prejudiced misinterpretation or failure on the part of some reporter to investigate the facts in the case. The great bulk of news items that have appeared in the press of the State in regard to the effort on the part of the chiropractors to secure an injunction in a federal court, that would protect this cult in its continued violation of the Medical Practice Act of Texas, constitutes a good example of this state of affairs. There never has been any sort of restraining order, or any reason why prosecution of these cases should be in the least interfered with, and yet the dispatches here referred to would lead to the contrary conclusion. It is believed that these matters will right themselves. Certainly it appears that the great majority of first-class newspapers in the State are in the main with us in this particular fight.

The *Brownwood Bulletin*, commenting on the sentence imposed by a New York court on a chiropractor who was convicted of second degree manslaughter following the death of a child from diphtheria, recently had the following to say:

"May God speed the day when all medical quacks may be similarly treated. The faker who takes money for treating diseases about which he knows nothing and who causes the deaths of innocent children is a menace to any community.

"The people do not have to experiment in the treatment of disease. The medical profession is one of the oldest and best equipped of all the professions, and in its ranks are found some of the foremost scientists of the day. Diseases such as diphtheria have been given the most careful study of the best men in the profession, and remedies have been discovered, which if properly applied reduce the mortality rate to a minimum. It is difficult to understand, therefore, why any parent should deliberately jeopardize the life of a child by calling in a

Dan Moody Says--

Chiropractors Must Quit or Leave the State

Medical Practice Act Does Not Discriminate Except In Favor of Brains and Training.

(Reprint From Star-Telegram)

Prediction that "a large immigration of Chiropractors to Oklahoma City, Davenport, Iowa, and elsewhere out of Texas will be witnessed in a few months," was made by Attorney General Dan Moody in discussing enforcement of the Medical Practice Act at a banquet Tuesday night at the Texas Hotel, Fort Worth.

"Enforcement of the Medical Practice Act, which is being sponsored by the State Medical Association at the request of the State Board of Medical Examiners, will cause practically every Chiropractor in Texas either to obtain a license or go into other business," the Attorney General declared.

Law Applies to All Practitioners

Mr Moody stressed the benefit to the public of enforcement of the Act, declaring that "Enforcement is not discriminatory except in the favor of brains and training."

He explained that "provisions of the law apply to all practitioners. After they get their license they can practice any method they choose."

"The present Act is the fifth since 1873," Mr Moody said. "It has been to the highest court (U S. Supreme Court) and held constitutional. It is a thing capable of enforcement, and I believe it should be enforced," Mr. Moody declared.

Case Rests on Three Points

The case rests upon the following three points, according to the Attorney General.

"1 Has defendant recorded with the District Clerk authority to practice medicine? (the term 'practice of medicine' includes all methods of restoring health, the art of healing)

"2 Has it been proven that he treated or offered to treat; or effect a cure of, some disease of the human body?

"3 Did he charge directly or indirectly for his services?"

"The public owes a debt of gratitude to the Medical profession," Attorney General Moody declared in mentioning the support given the State by members of the Medical Association

Why Mention Chiropractors?

(Chiropractors had special mention because they compose nearly 100 per cent of those who are offering their services to the sick without qualifying for a license. This law applies to regular doctors, osteopaths, homeopaths, eclectics, physio-medics, chiropractors, etc All of them are doing the same thing—dealing with the health of people, hence all of them are required to know the human body and human diseases. Several chiropractors have obtained a license from your State All of them should get license.)

The Sick Room is No Place For Ignorance

One Standard—One Law—One Board

State Board of Medical Examiners

State Medical Association

County Medical Society

Each member has qualified for a license and recorded it as required by law.

May Masseurs Treat Disease?

Higher Court Rules Masseurs Must Have License To Treat Sick

Unlicensed practitioners who treat disease for pay can not evade the wise requirements of the medical practice act by resorting to the subterfuge of calling themselves "masseurs" in an over-night scurry to cover since the recent conviction of violators of this righteous law All persons who treat disease for pay, even though they use no drugs, can not dodge this just law by calling their treatment "rubbing," "massage," or other forms of "manipulation."

Masseurs are exempt from getting a license when they confine their work to their particular sphere of labor which is to give their customers a massage when asked to do so—just as you ask your barber to give you a haircut, shampoo or massage. They are not exempt if they undertake to treat disease for pay

This is the gist of a decision handed down by the Court of Criminal Appeals in affirming the conviction of H. G. Milling who was found guilty in Stephens county court of practicing the healing art in violation of the medical practice act 1150 Southwestern Reporter page 434

COURT'S DECISION

Milling did practice upon human beings without authority of law, in that he did unlawfully treat a physical disease and disorder which treatment consists in performing certain physical manipulations with his hands without having registered in the district clerk's office his authority from the board of medical examiners

Milling claimed that he treated as a masseur and that masseurs were exempt from the law, and that because the subjects prescribed for applicants to practice are such as to exclude or not authorize masseurs to be examined and get a license This court in a well considered opinion has expressly held that a masseur, who he wants to practice, can obtain a license from the state medical board but in order to do so he must stand an examination in the subjects prescribed by the law

"Masseurs in their particular sphere of labor who publicly represent themselves as such are exempt from the law requiring a certificate of their authority to be recorded before practicing that art, but that if notwithstanding he so represents himself as a masseur he undertakes to cure diseases for pay he could not do so legally without the proper certificate registered in the clerk's office

All Doctors Should Qualify

The doctors of the country are organized to promote health and prevent disease They are investing their all in the treat the sick shall be qualified They believe that ignorance has no place in the sick room

Any person of good character in Texas over twenty-one years of age who obtains sufficient education in anatomy, physiology, pathology, diagnosis, gynecology, obstetrics, chemistry, surgery, histology, hygiene, and medical jurisprudence can receive a license to treat the sick And that is your main practice whatever method he likes He may use drugs, chiropractic, osteopathy, massage electro-therapeutics, surgery or any other form of treatment

The point is that each person must be educated to know the nature of diseases so that he shall be qualified to know the kind of treatment required

Opinions vary as to what method or kind of treatment the sick person should have For this reason your State does not require a doctor to be examined by the Board in his system of treatment Methods are being constantly improved but the subjects named above are groups of facts—eternal, unchanging FACTS

The medical practice Act was passed by the Legislature of Texas not to deny you the right to employ a healer of any kind but to make sure that all persons who engage in the business of healing the sick shall be reasonably safe And the Act was passed not for the benefit of the doctors but for the benefit of the public You owe it to yourself and to your family to know that your physician is licensed

The Sick Room is No Place for Ignorance

Require Quacks to Qualify or Quit

County Medical Society

Each member has recorded his license as required by law

FIG. 3.—Both of these ads have appeared before and have been considerably revised. They each tell a plain, simple story bearing upon the publicity and law enforcement campaign at the present time being conducted jointly by the State Board of Medical Examiners and the State Medical Association of Texas. The argument contained in each ad is good and incontrovertible. These and other ads bearing on different phases of the problem in hand are being used in various localities, in accordance with local conditions.

representative of a new and untried school of treatment when the family physician is infinitely better prepared to give the treatment that may be required. Until the laws are so amended as to give adequate protection against the quacks and fakers it is up to the parents to protect their own children against them."

The Dallas News recently spoke editorially on a very important phase of the practice of medicine, and quite significantly in view of the present campaign. There is no question but the great bulk of success of the quack is incident to that almost definite and rather large percentage of spontaneous and inevitable cures that take place in the practice of medicine. We do not need to comment on this editorial, and we feel that our readers will consider the space utilized in its reproduction quite well disposed of. The item follows:

"The old family doctor who used to give bread pills to cure diseases that didn't exist knew what he was about. Of course if he could have convinced the patient's family that what he secretly knew about the case was true he might have brought about a darkened, deserted room until the tantrum was over—in case it was an affair of tantrums—or a sunshiny, deserted room where the patient had a milder form of autosuggestion. In most of such cases the withdrawal of sympathy and attention gave the patient time to reflect and get hungry and gradually return to common sense and health. But occasionally such a patient persisted in the self-hypnosis until he actually starved and worried himself to death. So the old-time doctor used to fall back upon bread pills and fatherly advice in quiet manifestations of malingering and upon emetics and stern lectures in the worst cases.

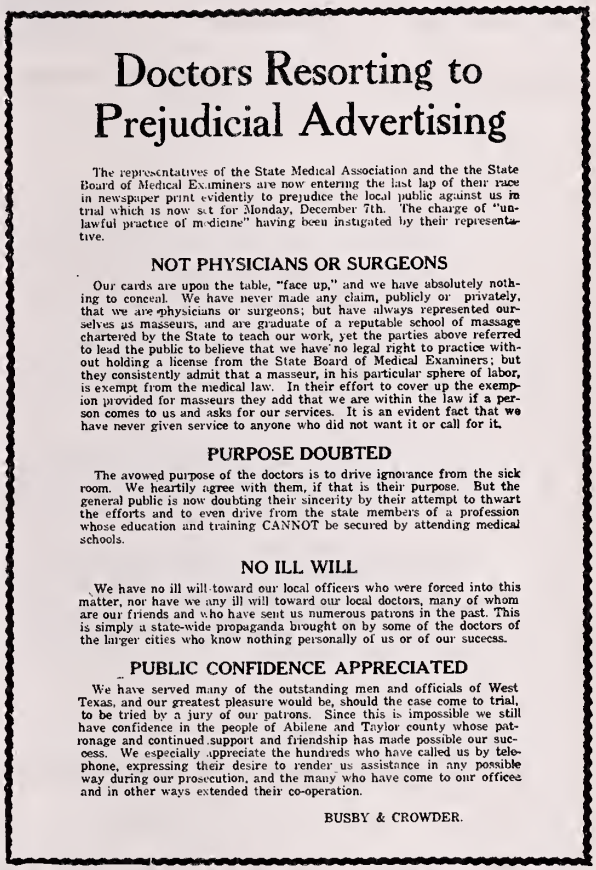
"Yale's School of Medicine has taken cognizance of the sick who are not really sick anywhere except in their minds. The form of that cognizance is the establishment of courses in psychiatry. Psychiatry is sometimes used as a kind of license plate for the parading of large words grandiloquently signifying nothing. Gentlemen of mediocre brain power seize upon the study of psychiatry as a handy badge of specialization—and specialization has become such a desirable attainment that the old-time, all-around man is about to be crowded out.

"But common sense plus the viewpoint of the psychiatrist, of course, gives the physician the opportunity to put right many a patient who is not really ill, but who is really in worse condition than if he were ill, and that because of obsessions of a character to render him ineffective mentally and physically.

"Many doctors are apt to snort at the malingerer and send him about his business. And such patients eventually go to the quacks to the great enrichment of that questionable fraternity.

"If quacks got only the physically well and impressionistically ill patients, quackery wouldn't be a bad thing at that. For if a negro mammy thinks she is 'conjured' and that setting an ax under the bed, blade edge up, will 'cut the conjure in two,' the witch doctor who prescribes the use of the ax is, after all, a benefactor rather than otherwise. According to Yale educators in the medical school, the tendency of the regular practitioner to ignore these 'mind' cases has led to all manner of charlatanry. There is undoubtedly a bit of truth in that.

"In his hurried and rather overworked season in laboratory and lecture room, the young medical student is not likely to find a vast amount of time for acquiring a specialist's proficiency in psychiatry. But he will learn a little about a normal psychology, anyhow. The better class of students will learn enough, certainly, to make them of use in 'spotting' cases in need of special treatment. Wholly aside from the matter of diverting the trend now so pronouncedly in the direction of pseudo-doctors of this 'school' of healing and that, there should be great benefit in thus training young physicians to anticipate situations capable of leading into insanity of one form or another. Practically every insane person has been in the hands of a regular physician before he reaches the specialist in mental diseases. Many of them are susceptible to restoration to normal health in the early stages of their disorder. Surely sharpening the physician's perception along that line is worth while. That may be a bit of a step away from drugs and back toward bread pills—but it is vastly more than an affair of bread pills, after all."



Doctors Resorting to Prejudicial Advertising

The representatives of the State Medical Association and the the State Board of Medical Examiners are now entering the last lap of their race in newspaper print evidently to prejudice the local public against us in trial which is now set for Monday, December 7th. The charge of "unlawful practice of medicine" having been instigated by their representative.

NOT PHYSICIANS OR SURGEONS

Our cards are upon the table, "face up," and we have absolutely nothing to conceal. We have never made any claim, publicly or privately, that we are physicians or surgeons; but have always represented ourselves as masseurs, and are graduate of a reputable school of massage chartered by the State to teach our work, yet the parties above referred to lead the public to believe that we have no legal right to practice without holding a license from the State Board of Medical Examiners; but they consistently admit that a masseur, in his particular sphere of labor, is exempt from the medical law. In their effort to cover up the exemption provided for masseurs they add that we are within the law if a person comes to us and asks for our services. It is an evident fact that we have never given service to anyone who did not want it or call for it.

PURPOSE DOUBTED

The avowed purpose of the doctors is to drive ignorance from the sick room. We heartily agree with them, if that is their purpose. But the general public is now doubting their sincerity by their attempt to thwart the efforts and to even drive from the state members of a profession whose education and training CANNOT be secured by attending medical schools.

NO ILL WILL

We have no ill will toward our local officers who were forced into this matter, nor have we any ill will toward our local doctors, many of whom are our friends and who have sent us numerous patrons in the past. This is simply a state-wide propaganda brought on by some of the doctors of the larger cities who know nothing personally of us or of our success.

PUBLIC CONFIDENCE APPRECIATED

We have served many of the outstanding men and officials of West Texas, and our greatest pleasure would be, should the case come to trial, to be tried by a jury of our patrons. Since this is impossible we still have confidence in the people of Abilene and Taylor county whose patronage and continued support and friendship has made possible our success. We especially appreciate the hundreds who have called us by telephone, expressing their desire to render us assistance in any possible way during our prosecution, and the many who have come to our offices and in other ways extended their co-operation.

BUSBY & CROWDER.

FIG. 4.—An argumentative ad from the opposition. Note the intimation that the law enforcement campaign being conducted by the State Board of Medical Examiners and the State Medical Association is due to be discontinued in the near future. The claim is stressed that there is a difference between the masseur who practices medicine and the doctor who practices medicine; also, that services are rendered only when called for. We presume that is true also of the bootlegger. Note that the medical profession is actuated not altogether by worthy motives, notwithstanding which fact there is no resentment on the part of these particular masseurs, a sort of "Father forgive them, they know not what they do" attitude.

Some of the papers, as we have said, are not so discriminating in the premises, The

Grand Prairie Texan is one of these. The editor professes to hold no brief for the chiropractors, but it is significant that he lives near one of the chief defenders of this cult and principal proponents of its claims in the recent two sessions of the Legislature, Representative McNatt. The *Texan* deposes and sayeth as follows:

"The medical profession, which for many years has maintained a strict ethical attitude and positively refrained from using printers' ink to proclaim their wares, has at last broke into public print, not to sell medicine, but in an effort to curb another body of professional men, who it seems are breaking into their playhouse and relieving some of the M. D.'s pensioners of the tortorous pains and affliction from which they (the patients) have been suffering for years. Now we hold no brief for the chiropractors, or any profession, and believe they are capable of fighting their own battles, but we do believe there are virtues in the remedies applied by both the professions, and common sense teaches us that one has as much right to exist as the other, and any law that would prevent the practice of men qualified in either profession is class legislation, and an iniquitous law and should not be countenanced by a liberty loving people."

FRIDAY, NOV 14, 1913 THE CANTON HERALD PAGE THREE

History Repeating Itself in a Modern Episode ..

Announcement!

ANNOUNCEMENT was recently made that I was going to trial, but due to a rearrangement of the Court's docket, my case was set over till MONDAY, NOV. 16, when I will go to trial on a charge of ***Practicing Medicine Without a License.***

The expressions of sympathy that have come to me lately make me realize more than ever before that ***surely*** this is not a personal attack, but an outrage against the liberty of the people. Should a conviction result, I could then be enjoined from practice, thus depriving the citizenry of Van Zandt county of the services of a Chiropractor.

It having recently been announced publicly in Grand Saline by a member of the Medical Profession that they had secured the services of such ***gentlemen*** (?), secret service men have recently been suspected of being at work procuring ***evidence*** against Chiropractors.

As we had occasion to say, only recently, it is the age-old story of persecution---the spirit of which turns to color the pages of history.

Burglar alarms, locks on doors and windows and other precautions give the home ---the family---some degree of protection against the gent who comes at unseemly hours, with deft touch and silent tread---whose objective is a questionable loot. But how can one protect oneself against such a conspiracy—against a persecution that strikes and gives no warning—aiming always at one objective—namely, a health method that has already proven its claims?

I stand ready to prove every claim I have ever made for Chiropractic. I will allow any reputable committee to make a thorough and careful investigation of my claims for Chiropractic and agree to publish their verdict. It is a mere incident. Truth will not down! You can crucify ***Truth***, but it is as eternal as eternity, and will live when its enemies have crumbled into dust.

There is nothing but kindness in my heart. But I will fight till the last ditch for the discovery that means ***Health***—life itself---to thousands afflicted with Disease, the greatest enemy of mankind.

PHONE FOR APPOINTMENT

H. A. BENNETT

Van Zandt County's Pioneer Chiropractor

FIG. 5.—This is one of the best counter offensives we have seen from the opposition. It does not enter into any extensive argument, the insufficiency of which would be clearly evident to the intelligent reader. The spirit of determination claimed for himself by this advertiser is usually admired, no matter what it proposes to cover. This ad very cleverly seeks to prepare public opinion in advance of trial, and no doubt many prospective jurors read it and perhaps some of them gave heed to the specious claims of the advertiser.

The Waxahachie Tribune, for what reason we do not know, has chosen to speak quite unkindly of our effort to bring about the enforcement of the Medical Practice Act, as evidenced by the arrest in Waxahachie of an alleged violator of the law who happened to be a chiropractor. This publication flatly charges the American Medical Association and its subordinate bodies with attempting to dictate to the American people how they must go about curing their ills, and emphatically demands a halt. The effort to prosecute violators of this law is denominated persecution, and it is held that there is no laudable reason why chiropractors should be put out of business other than they have not complied with the Medical Practice Act, with which compliance it is alleged the chiropractors need not accord because of the fact that they do not give medicines. It is urged in this article that other states recognize chiropractic as a legitimate field in the practice of medicine and that if chiropractic were dangerous it would not be necessary for hired investigators of the State Medical Association to file charges against them. In another article in the same publication on the same day, appears the statement that an attack on chiropractors was launched by the Ellis County physicians, and that the other newspapers in the community had refrained from mentioning this, because the doctors were highly respected and useful citizens. The item continues with the statement that this is the last desperate effort on the part of the

State Medical Association to push into the discard this newest system of healing, and that the effort is doomed to meet with failure. The attempt is made to capitalize the fact that charges were filed by an alleged agent of the State Medical Association and not by any patient of any chiropractor under arrest.

This newspaper is aggrieved that the medical profession has resorted to this procedure, because of its ancient and honorable history and the great good it has done suffering humanity. The usual allegation that thousands of people have been benefited by this new system of healing, and that no harm can come of it, is made. The facts in the case are, of course, overlooked. Still another item in this publication entitled, "Do the People Know," carries the misstatement that the Dallas County Medical Society has launched a campaign of misrepresentation against the chiropractic profession, and attempts to capitalize the tendency of modern medicine to rely on therapeutic measures outside of the realm of drugs. The author of this discussion evidently has been misled by the literature of some of the chiropractic colleges, which profess to require a student to put in 4,103 hours before he is given a diploma by his college; that he is required, in fact, to develop great learning. But the most astonishing bit of educational material on this subject carried by this estimable newspaper is an article by a couple of chiropractors on the "Cause of Disease and Correction." The alleged history of chiropractic is given in this wonderful article. It is amusing to note that this alleged science had its inception in the cure of a deaf man by a manipulation of the spine. The article does not explain how the nerve responsible for deafness happened to get down to the spinal column. The theory of chiropractic, in this particular article, is based on the alleged similarity between what happens to a tooth when the nerve is cut and what happens to the body when the vertebrae press on the nerves supplying it with nerve force. No attempt is made to prove that the vertebrae can be so moved as to bring about any sort of pressure, much less enough to injure the powerful nerves that emerge therefrom through ample foramina. The entire article savors of the superstitions of the dark ages.

There are others, but these are enough to show the way the wind blows. In the meantime, there is every reason why activity should continue in the matter of our publicity and enforcement campaign, and none why it should not.

The Dinner Plan of Public Contact has been used with much success by several county medical societies in their effort to bring the Medical Practice Act problems forcibly to the attention of the lay public. The plan was first used in this connection, we believe, certainly in this campaign, at Dallas in the beginning of the movement. The principal idea was at that time to get together for a general conference those members of county societies contiguous to Dallas who were to be concerned directly in the publicity and law enforcement campaign. This seemed a good opportunity to at the same time inform selected citizens among the laity, and President Dr. Rosser saw that invitations were issued accordingly. There was a large attendance and many important people were reached that otherwise would not have had the matter called to their attention.

Later on, it became necessary to call together the official family of the State Medical Association for a conference on matters in general and this campaign in particular. The conference was called for Fort Worth. There was little or no time during the day for the whole group to get together on the subject most prominently before us, and the dinner was decided upon. President Dr. Rosser, in the light of the Dallas experience, suggested that selected laymen be invited to attend this meeting, which was done. Attorney General Moody had only recently come out emphatically and without reservation in favor of the enforcement of the Medical Practice Act, and he was invited to attend the dinner. He accepted gladly, and in appreciation of his support the occasion was denominated the "Dan Moody Dinner."

The McLennan County Medical Society soon followed with a similar dinner, organized on a more direct and effective basis. The success of the dinner at Waco was so phenomenal that the committee in charge of the enforcement campaign decided that the Waco plan should be advised and put into effect wherever possible. Then followed similar dinners at Sweetwater, promoted by the Nolan County Medical Society, and at Abilene, sponsored by the Taylor County Medical Society, both of which were splendidly successful. Other dinners are in immediate prospect at San Antonio and Beaumont, and no doubt they will be held in many of the important medical centers of the State before this administration has concluded its endeavors.

The plan is very simple: The society decides to give the dinner. A committee is appointed to work out the details. The committee makes a list of the key laymen of the community, to the number that it feels the

society can afford to entertain and has the facilities for entertaining, and the total cost is estimated. Members of the society are asked to contribute in the aggregate enough to defray this expense, and each contributing member is allowed to check from this list, in proportion to his contribution those who will be invited in his name. The dinner is given in honor of some outstanding friend of the medical profession who should be honored. Tickets are printed and mailed and response requested. The speaking program is arranged, including lay and professional speakers and covering the whole problem of law enforcement, emphasizing the Medical Practice Act and the pressing need of its enforcement. It seems desirable to have some one speak on the work, ideals and ambitions of the State Medical Association, in order that the impression may not be made that our principal object is to fight quackery. Some outstanding and highly respected member of the medical profession is selected to act as toastmaster.

We do not happen to have in our possession at this time the program of any of the other dinners, but the following program of the Taylor County Medical Society dinner is typical: Toastmaster, Dr. P. C. Coleman, councilor, Colorado City; "Ideals and Activities of the Medical Profession," Dr. Holman Taylor, Fort Worth, Secretary State Medical Association; "Law Enforcement," Honorable Dallas Scarborough, Abilene; "The Duty of the State to the Sick Citizen," Dr. C. M. Rosser, Dallas, President State Medical Association; "The Duty of the Citizen in Law Enforcement," the Honorable Frank E. Smith, county attorney; "Education and the Physician," Dr. J. W. Hunt, Abilene, president McMurry College.

As a matter of psychology, it is best to have these dinners immediately preceding the campaign of newspaper publicity and law enforcement in the county. The State office is ready to help work out the details of such a function anywhere, and the councilors are anxious to be of service in this particular.

Woman's Auxiliary to Help Popularize the Medical Practice Act.—It is a matter of great satisfaction that the Woman's Auxiliary has decided to extend direct and definite aid to the State Medical Association and the State Board of Medical Examiners, in acquainting the public with the Medical Practice Act and the necessity of its enforcement. There has never been any doubt, of course, as to the good intentions of our splendid auxiliary in support of all of our endeavors, but this matter is so highly controversial that there could have been much excuse for side-stepping on the part of the auxiliary. As a matter of fact, the auxiliary is locally, as a rule, a part of the Federation of Women's Clubs, and in these clubs there are advocates of all sorts of sectarian medicine, certainly including Christian science and chiropractic, the two most active at this time which do not agree to any of the scientific principles used in medicine. Very naturally, there will be more or less embarrassment when this question is raised in any conferences between representatives of these several women's clubs. For that reason, particularly, we are pleased that the present administration of the auxiliary has made this decision. We have known of the plan for some time, but have waited for more particulars before discussing the subject. However, it seems that now is the time when every encouragement possible should be forthcoming and so the information is thus made available to all.

Steps should very promptly be taken to coördinate the work of county societies and county society auxiliaries in this particular. The month of October was set aside by the state auxiliary for intensive study of the Medical Practice Act. It is to be hoped that much information resulted from this activity. Without such information the fight would be made in the dark and at a disadvantage. We recall the complaint of a member of one of our women's clubs when the proposal was made that our eclipsed friend, Coue, be brought to one of our Texas cities by the women's clubs. Nobody was in a position to say anything about it, although many of those present and voting had considerable scruples in the premises. They could not say much because they did not know much. The same thing would happen now if some medical faker were plausibly put before these clubs, with a small but active and militant backing. Even as we write a representative of the notorious McFadden interests is touring the State and advising patrons of certain of the large department stores, concerning their health. The presence in each conference of informed members of the women's auxiliary of the State Medical Association will most certainly prove to be a wholesome influence.

Another duty the auxiliary has assumed which will be of distinct advantage in educating the public on the general subject of scientific medicine, is that of circulating *Hygeia*, the health journal of the American Medical Association. The public has for some years been painfully toiling and stumbling along the peculiar lines set out for them by numerous more or less vicious lay health publications, and it is hard to convince and con-

vict to the contrary. However, we know of several instances where *Hygeia* has been placed in the hands of erstwhile followers after peculiar systems of health preservation, as set out by the aforesaid bizarre lay health publications, and we have yet to find an instance where the desired reform has not been promptly accomplished. Indeed, it is impossible for an intelligent, educated layman to read *Hygeia* month in and month out and not be impressed with the reasonableness of true science and the hazard of pseudo-science and half-baked theories, along health lines. *Hygeia* is so different from the usual publication of propaganda that suspicion is allayed at once and instruction then is easy. We wonder if there is a county medical society in the State, including the Woman's Auxiliary, which before the next annual session of the State Medical Association can say that the laity within its jurisdiction has been thoroughly canvassed in the interest of this publication?

We are afraid our message to our readers in this connection is about to be lost. It is this: See that county medical societies immediately enter into such coöperative agreement with their respective auxiliaries that the proper education of the public on the subject of the Medical Practice Act and health, may be accomplished within the minimum of time, and certainly in time to support the present campaign in the interest of the enforcement of the Medical Practice Act, conducted by the State Medical Association of Texas and the State Board of Medical Examiners.

The State Eclectic Association Supports Enforcement Campaign.—While it is our understanding that the state associations of all of the minor schools represented on the State Board of Medical Examiners, are in active support of the publicity and law enforcement campaign at present under way, we do not recall any official statement to that effect, coming to us directly. We have recently been furnished with a resolution of support, adopted by the Texas Eclectic Medical Association, which we reproduce here as a matter of interest and information:

"Believing that adequate preliminary education and mastery of the fundamental medical sciences is absolutely essential to a correct understanding of the human body in health and disease, without which no practitioner of the art of healing, regardless of the method employed, is capable of safeguarding the public health against transmissible disease, the Texas Eclectic Medical Association, whose membership is composed of physicians who have complied with the provisions of the law and are legally registered, hereby endorses and commends the efforts of the Texas State Board of Medical Examiners to enforce the health protective provisions of the Medical Practice Act."

There really has been no controversy between our group and any of the smaller groups, perhaps unfortunately designated as "schools," since the present Medical Practice Act has been a law. There formerly was a great deal of that sort of thing, to the discredit of the practice of medicine as a whole, no doubt. Suppression of such quibbling is one of the important accomplishments of the one-board Medical Practice Act. We do not suppose the several arbitrarily divided groups of physicians practicing medicine in this State have agreed among themselves or each other on many of the controversial points in medicine. Indeed, such could not in the nature of things be the case. There would not be any minor schools, if it were so. Hardly would there be any practice of medicine, for it is a fact that doctors differ among themselves rather widely as to methods of practice and procedure, and it is just this difference that makes for discussion and progress.

However, there should be agreement on the basic science of medicine and most of the important principles involved in practice, and be it said to the credit of the so-called minor schools that agreement has already been reached as to the basic sciences and the important differences in principles of practice are being gradually minimized. Of course, there are reactionaries in all of our groups, and radicals as well, and against these the great majority of us must, even though sometimes with embarrassment, take our stand. We must participate agreeably in the normal process of evolution or be brushed aside by the stream of progress and take our place with the rest of the driftwood.

DISTRICT OF COLUMBIA DRUGGISTS URGE SUPPORT OF VENEREAL DISEASE CONTROL LAW.

That druggists should no more attempt to treat the venereal diseases than they should handle smallpox, typhoid, diphtheria, or similar ailments is the view expressed by the Legislative Committee of the District of Columbia Retail Druggists' Association, in a circular recently issued by the committee to members of the Association. "Druggists must realize," says the committee, "that efforts of the public health authorities have placed venereal disease in the same category as smallpox, diphtheria, typhoid, yellow fever and other more or less controllable diseases." Attention is directed to the venereal disease control law for the District of Columbia enacted by Congress in February, 1925, and the druggists of the district are urged to coöperate with the local health department and physicians in making effective the provisions of the law.—*U. S. P. H. S. Health News.*

ORIGINAL ARTICLES

TEACHING AND CONTROL OF THE TUBERCULOUS PATIENT.*

BY

WILLIAM H. ROSS, M. D.,
HOUSTON, TEXAS.

Many of us who feel confident of our ability to treat other acute and chronic diseases successfully, feel more or less helpless in the presence of tuberculosis. This lack of confidence is due mainly to the general apathy of the profession as a whole toward the disease, and not because the average physician is incapable.

Physicians who are keen in the art of searching out causes, and in measuring effects in all other ordinary diseases, develop an attitude of hesitancy and uncertainty when tuberculosis is mentioned, and this uncertainty is frequently reflected in the manner in which they handle their cases and in the results obtained. The main reasons for this are not difficult to find. Physicians in general lay stress on some particular measure or measures instead of aiming primarily to control the patient. There are some aspects of tuberculosis, some peculiar slants, which the majority of physicians engaged in general medicine have not yet grasped clearly enough. If physicians in general will but remember that early tuberculosis can be diagnosed and treated successfully, and that they themselves are capable of doing this, the result will be that a large proportion of the profession will gain in confidence and ability to successfully cope with the disease and manage their tuberculous cases.

The difference between successful and unsuccessful treatment is not merely the difference between knowing much and knowing little about tuberculosis. It is more a matter of one's point of view. The average physician acts from the point of view that some particular climate, milk and eggs, and pharmaceuticals are the essential factors in treatment, but fails to see that material things cannot benefit the patient until that patient is controlled mentally and physically.

If every physician will pause long enough to answer the question, "Why did this patient break down with tuberculosis?" he will at that moment have the outline of successful treatment for that particular case before him, along with good reasons for every measure he will use.

It is well known to students of tuberculosis that adults do not usually break down merely because tubercle bacilli have gained access to the body, for these are usually present for years previous to the breakdown. Preparation of the soil is first necessary, and this is usually accomplished through neglect of health and by vicious habits, with or without evil intent, extending over a long period of time. That ignorance produces poverty and tuberculosis is almost axiomatic.

There is nothing new in this information, but the conclusion to which it leads is of utmost importance from the standpoint of prevention and treatment. If ignorance and its offspring, poverty, brought on the added misfortune, it follows just as surely as day follows night, that no measure can be effective in arresting the progress of the disease, until one has first gained control of the patient's mind and mental processes—in short, his habits. This means re-education along health lines. Speaking figuratively, the patient's mind must be taken down and rebuilt along proper lines. It is good to order a patient to do certain things, but one will not have accomplished anything worth while until he has taught the patient how to do those things and why they should be done.

The doctor must never lose sight of the fact that he and his measures are only about half of the equation; the patient and those around him complete it. If rest is prescribed, the patient must be taught how to use it, and this followed up with a reasonable explanation of why. If this is not done we are more likely than not to find our patient, at the next visit, interpreting rest according to his light, which may be hard work in his particular case.

The art of successful treatment does not reside in what one does so much as it does in just how one does it. Success is frequently only the difference between two shades of the same color. Emphasis must be placed on complete control of the patient, and not upon the virtues of air, climate, medicines, etc. The big question is, "What is the patient going to do for himself?" rather than, "What am I going to give or do for the patient?" This is just a shifting of one's point of view.

The great difficulty would be solved if we could but find a specific, but up to the present moment we have nothing that comes nearer to a specific than complete control and teaching of our patient. Every measure used today is indirect and must be regarded only as a tonic measure prescribed for the purpose of building upon something which the patient already has. A reason why we cannot arrest many unfavorable cases is because they have practically nothing left upon which to build. They cannot respond to our tonic measures, except feebly and for a brief time only. No measure known today amounts to more than a tonic. A tonic measure may help, but it

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 6, 1925.

does not follow that a number of tonic measures will amount to a total sufficient to raise the patient's resistance to the point where he can overcome the disease. But when proper tonic measures have been applied, success will then depend on just how they are applied, and on the complete coöperation of the patient for a sufficient length of time.

When one considers treatment from this point of view, it follows naturally that the successful physician is the one who controls his patient through teaching him all that he should know. He always follows up the application of a principle with a clear explanation of just how it is to be applied and why. The ignorance of even the high school or college graduate, on these matters would be highly amusing were it not so tragic, and such a patient should never be left to interpret what we mean when we order him to rest, eat good food, get plenty of fresh air and so on. The physician must know just how to apply, and, in a general way, what to expect of each one of his tonic measures, and not expect impossible things of air and other tonics. But he must not rest here; he must get this information over to his patient in such a way that he will carry out orders faithfully and intelligently for an indefinite length of time.

Control is what makes our tonic measures effective, because it causes the patient to stand squarely on his own base and make the most of his possibilities. Control is to our tonic measures what the cement is to bricks, or what the string is to a string of pearls. When a string of pearls is presented, how many of the observers see or think of the string? Yet without that string one could not have a string of pearls. In the treatment of tuberculosis, control of the patient occupies the same important position, for without this control, no measure known is of any great value. One pearl represents the principle of rest, another represents good food, and still others represent fresh air, medicines, elimination, surgery, or the special therapies. Some pearls are bigger and more valuable than others; likewise, some tonic measures are more valuable than others, but the important thing to remember is that no tonic measure, regardless of what it is or how expensive, is of any more importance, *per se*, to the successful outcome of the case than any one of the pearls is to the string of pearls.

Control of the patient is an immensely big subject because it is the nucleus of treatment. Not only does it induce the patient to do the right thing at the proper time; teach him just how to do it, and why, so that we are working with a patient who is working just as hard and as intelligently with us, but it fortifies him against the assaults of well meaning but misdirected relatives and friends, as well as against the neighborhood vultures, cults, quacks, and nostrums. The controlled patient will give these agencies a respectful hearing, laugh up his sleeve, then go merrily on with the good work. He is happy and contented.

On the other hand, the physician who regards tuberculosis from this conservative point of view will read the wonderful selling literature of drug manufacturers, listen to the rehearsed speech of the high-powered drug or instrument salesman, who so frequently assumes the attitude of teaching us medicine; or resist the urge to send the patient away off somewhere without giving due consideration to the questions of finance and the qualifications of the physician who may be called upon to treat him.

RELATION OF TREATMENT TO ETIOLOGY AND PATHOLOGY.

No one, regardless of his experience, can succeed in telling another how to treat his tuberculous patient. There are, however, certain fundamental principles which apply to practically every case of arrestable tuberculosis, regardless of whether the local manifestation be in the lungs, glands, bones, peritoneum or kidneys. One must never lose sight of the fact that tuberculosis is a general condition presenting local manifestations. Our treatment, to be successful, must be primarily and essentially directed toward the upbuilding of the malnutrition and lowered tissue tone.

It should be recognized by every physician that this general condition antedated the local manifestation by many months or years. Nor should he stop here. By the process of reasoning backward; by commencing with the known disease and working back to its probable cause, the physician should recognize that the tuberculous condition was not a spontaneous phenomenon; it did not just happen. Extensive studies show that the tuberculous condition developed gradually as a result of the patient's habits of living, from babyhood on down through life to the time of the clinical breakdown.

The clinical breakdown coincides with the time that the tubercle bacillus, which had been lying latent in the peribronchial or other glands for years, finds the general bodily condition favorable for his conquest of a new area. This new localization, or metastasis, may just as easily as not be in an organ or tissue remote from the primary infection. This may be in the lungs, pleura, kidneys or peritoneum, but regardless of the localization, the fundamental principles of treatment are the same. The diseased kidney may be suc-

cessfully removed, but the next time the bacilli sally forth, it may be a matter of months or years, the lungs, peritoneum, pleura, meninges, or the entire body, may be the object of the attack. The treatment, therefore, must take into consideration the entire patient, body and mind, with his past, present and future. Any treatment that slights the patient's *ego* is bound to fail eventually, although years may be required to prove this.

PRINCIPLES OF TREATMENT.

The fundamental principles of treatment, named in the order of their importance, are: (1) Rest, mental and physical, (2) good food, (3) fresh air, (4) elimination, (5) drugs, medicines, and special therapies, and (6) exercise, properly controlled.

PREPARATION OF PATIENT FOR TREATMENT.

The modern patient will not submit to a serious nonemergency operation at the mere request, or order, of his physician. But the same patient will do so quite cheerfully the moment the necessity for such an operation is explained to him in a manner that he can understand and grasp. What is true of the surgical patient is equally true, if not more so, of the tuberculous patient. He demands good and sufficient reasons for everything he is expected to do. He cannot be scared into doing anything for more than a few days or weeks. Before ordering or prescribing any measure, the wise physician will recognize these facts and sit down leisurely with his patient and dispel his fears and worries, by assuring him that tuberculosis is not by any means the worst chronic disease which he might have acquired. It is the most curable of all chronic diseases, with a tendency toward recovery, if allowed to do so. This is not true of most other chronic diseases. Tuberculosis is usually fatal only when neglected; even far-advanced cases not infrequently get well.

By this time the patient will have caught some of the smiling countenance, assurance and optimism of his physician, and will now be found ready to listen to reasonable advice. Frankness and honesty are demanded of the patient in carrying out the spirit of the orders, and no physician can expect this unless he is frank with his patient, but not brutally so. It should be explained that tuberculosis was a long time in developing, and for that reason the treatment will have to extend over a long period of time, and that he will probably *look* and *feel* well long before he *is* well. The real healing may be only nicely started, and the patient who accepts appearances in disregard to the known facts, is doomed to failure.

Many good and simple arguments can be used here, effectively. The physician must completely sell the patient the idea that he can get well, but that ultimate success will depend on just how conscientiously and cheerfully the teaching is carried out. One should be careful not to allow the patient to select one or two of the prescribed measures as important, and substitute short-cuts for the remainder. The physician must know what the average patient is liable to do and then proceed to put down an effective barrage before the patient has arrived at that stage.

With few exceptions, every patient who needs treatment at all needs it imperatively. Nearly every adult who has clinical tuberculosis has been "stepping" pretty fast, or living upside down and backwards for a long time. Treatment, therefore, should be begun by giving the patient both barrels fired point-blank right on the start. He should be loaded to full capacity right in the beginning by putting him to bed, because, in addition to other good reasons, it is a simple and pleasant matter to gradually relax the rigid routine as the patient improves; and the memory of what he has gone through will be pleasant and instructive as well as impressive. On the other hand, should it become necessary to tighten up on the patient's routine, who, for sentimental or other reasons, was permitted to commence treatment with a more or less pleasurable regimen, it will be be found to be a difficult and painful, if not impossible, task. It is at this stage that the patient usually calls in another physician. The physician will lose his patient in the end if treatment started wrong is continued; or he will lose him when he attempts to make the radical change, and the patient will have lost valuable time. The general practitioner's failure is often the chest man's opportunity, which would not be wholly bad did it not so frequently come so late in the disease. There is nothing miraculous about the treatment of tuberculosis. No drug, measure, or combination of measures, produces anything strange to one who understands the disease. Success is simply an instance of so much honest, conscientious effort intelligently applied, producing a like amount of results with a profit, provided success is possible in a given case.

SUMMARY.

1. The general practitioner can diagnose and treat tuberculosis successfully.

2. Tuberculosis in the adult, from a therapeutic viewpoint, is a general condition (produced by years of wrong living) presenting local manifestations.

3. There is no specific treatment; no

measure known today amounts to more than a tonic.

4. Proper treatment should be based on discovering the causes leading up to the breakdown, and removing these by teaching the patient, and thereby controlling him mentally and physically.

5. The principles of treatment, named in the order of their importance are: Rest, good food, fresh air, elimination, pharmaceuticals, and special therapies.

6. The patient should not be left to interpret what we mean by rest, good food or fresh air. When a measure is applied, the patient should be made to understand just how to apply that measure, and what we are seeking. He should not be left to expect impossible things of any measure. In this way we secure his conscientious, intelligent coöperation, not only during treatment, but for an indefinite period afterwards.

7. The patient should not be allowed to believe that he can discover a short-cut to health, via the medicine route.

ABSTRACT OF DISCUSSION.

Dr. S. E. Thompson, Kerrville: Since Dr. Ross was kind enough to furnish me with a copy of his paper beforehand, and requested that I discuss his paper with both freedom and frankness, this I shall endeavor to do.

As to what should be done for tuberculous patients, I agree without reservation. With equal emphasis I disagree with the essayist as to the best method of carrying out the treatment. For the past 14 years I have had the privilege of treating tuberculous patients in tents, in boarding houses, in their homes and in the sanatorium. Without any show of egotism or "holier than thou" spirit, I feel that this experience and this prolonged observation places me in a position to know something about the relative value of home treatment and sanatorium treatment.

It is true that we have no specific for this disease. There is nothing in a bottle, in a hypodermic, or in serums, fumes or gases, that will cure tuberculosis. If we had a specific, treatment could probably be given at home with satisfaction and efficiency, but home treatment will not work with our present method of treatment or produce equal results. Every sick man, if he can afford it, is entitled not alone to the best his doctor is in a position to give him, but to the maximum which may be obtained from the ranks of the medical profession. If possible, this should be secured for him.

Homes are not planned, built and equipped for the purpose of taking care of, and treating the sick. The home routine of every day life, social, business and otherwise, renders them unsuitable and unsatisfactory places for prolonged cases of illness such as pulmonary tuberculosis. Even if we could control the patient, which we cannot, it would be impractical to fit the friends, the family, and the affairs of the home, into the scheme best suited for the patient. The handling of tuberculosis is not so simple; many dollars could be saved if it were. Hospitals and sanatoria are throughout, planned, built and equipped for the sole purpose of caring for the sick. It is just as consistent and just about as practical—and would probably be as efficient—to try to carry out college and university education in the home. We could buy the student his books; we could outline his course and tell him what we expected him to do; we could even have some professor hear his recitations every night. However, if I wanted an education and selected this method of acquiring it, it would be because the orthodox plan was impossible for me to follow.

A case of appendicitis, or mastoiditis, or gallstones, might be operated on in the home, or possibly out under a tree, and the patient might make a complete recovery, but under these conditions no discriminating doctor would feel that he had given his patient the best possible change. Every surgical or obstetrical case may not be able to go into a well-regulated hospital, but this is no argument that the hospital is less desirable and less valuable. It may not be possible for a tuberculous patient to go to a sanatorium which has been planned and manned to take care of and treat him, but this does signify that home treatment is just as good and efficient. The average physician is not only incapable of treating tuberculosis, but he does not have the equipment for this purpose. The best farmer in Texas would be helpless with only a grubbing hoe.

Those who devote their efforts to the treatment of tuberculosis exclusively, are agreed that the great problem is not the *disease*, but the *patient*. To keep him under the strictest control and discipline for months and months is no easy task. Even in sanatoria, where everything is planned with this idea in mind, and where the patient is surrounded by bells, rules, nurses and doctors, not 20 per cent secure the maximum benefit of the treatment, because they cannot be perfectly controlled for a sufficient period of time.

The treatment of tuberculosis resolves itself into a program, and it is a difficult program to follow for an indefinite period. To do this successfully, the patient must have every possible support and it has been my experience that this cannot be given in the home.

The essayist, in outlining the treatment, gives rest, mental and physical, good food, fresh air, elimination, drugs, medicines and special therapeutics, and exercise properly controlled. All of these are fine except the last. I do not believe that exercise has any place in the treatment of a patient suffering from active tuberculosis. If a patient had tuberculosis of the throat, we would not let him sing even in moderation. If he had tuberculosis of the knee or hip-joints, we would not advise him to walk or swim at all. If he has tuberculosis of the lung, he should be put to bed and should not be permitted to read, write or talk except at prescribed short intervals each day. After his lesion is healed and under perfect control, graduated exercise is fine to restore the patient's vigor and physical endurance, but it has no place in the treatment of his disease.

Dr. Wm. Keiller, Galveston: In 1908, I was a case of active tuberculosis; now, I am cured, as far as cure is possible, so I feel that I am in a position to emphasize a few practical points of instruction to tuberculous patients. The great value of the sanatorium is in the early case, in teaching the patient how to play the game. It should teach him in detail how to conduct himself and above everything else how to be hopeful. It is extremely hard to teach a young man to "play the game." The average doctor does not know what open air is. For a tuberculous patient open air treatment means to be in the open air 24 hours of the day. The order to rest is not interpreted properly by physicians. Rest means absolute rest, the patient flat on his back. It means no reading, and also no letter writing. During convalescence, I have found a valuable dictum to be, "Never stand when you can sit; never sit when you can lie down." I am partial to the plaster jacket for the absolute rest of the affected part of

the chest. It limits the thoracic breathing and forces abdominal breathing. I have been particularly impressed in my case with the beneficial effects of direct sunlight on the entire body surface. Besides its curative effect, the thorough sunburning will frequently relieve pleuritic pain.

Dr. Alvis E. Greer, Houston: I would like to plead for a closer coöperation between the physicians in charge of the sanatoria and the patient's family physician at home. No tuberculous case can be successfully treated unless these two are in accord. The average tuberculous patient is urged to go to a sanatorium because it is believed that his recovery will be more prompt and that he will be trained to take care of himself better. However, there are circumstances that will force many of our patients to be treated at home. If the physician cannot teach and control these tuberculous patients properly in the home, then he will fall short in the necessary results to cure his patient. My observation has been that often the sanatorium physician does not properly instruct his patient how to care for himself at home after he leaves the institution. While these patients are in the sanatorium, under close discipline, they improve rapidly; but upon returning home in different surroundings and without proper guidance and instruction, they soon have a recurrence of their old process. I would suggest that the sanatorium physician return his cases to a competent physician with proper advice as to the care of these patients. The non-sanatorium physician sends many cases of tuberculosis to the sanatorium with complications such as diabetes and nephritis. These patients should be properly advised by their physician and the physician should coöperate closely with the sanatorium in this treatment. It is only in this way that we can hope to obtain good and lasting results.

Dr. Ross (closing): I have tried unselfishly to tell you something about managing your tuberculous patients, and thereby obtaining good results, where possible.

Dr. Thompson states that the sanatorium is the only place in which to treat tuberculosis. That the average doctor is incapable of teaching his patient and that the average patient is so negligent of his own life that he will not obey reasonably well when properly taught, is a severe indictment of both physician and patient. Sanatorium treatment is good for some patients, but impossible for another much larger group. I do not advocate home treatment of tuberculosis because as matters stand today we have no other choice for from 70 to 80 per cent of patients in need of careful treatment. Let's take this statement apart. Dr. Thompson's statement means that the number of beds provided for the special treatment of tuberculosis should at least equal the number of deaths from tuberculosis per year. Students of the subject are agreed on that. Statistics show that we have in round numbers one hundred deaths yearly from tuberculosis per one hundred thousand of population. This means that we should have an equal number of beds for the treatment of this disease. I doubt whether we have ten thousand such beds in the United States, but I will be conservative and say we have fifteen thousand. If sanatorium treatment were limited to only six months for each patient, we could fill the fifteen thousand beds twice yearly and care for thirty thousand patients; but who will care for the other seventy thousand? If you doctors do not, the chiropractors, faith healers and drug store clerks will. As a matter of fact, this is just how a large number of them are being cared for.

The sanatorium does not and cannot solve the problem of proper care of our tuberculous population: first, because it can accommodate only a small percentage of those needing good treatment; second, because only a small percentage can afford sanatorium treatment, or will enter a sanatorium, even if they can afford it; third, because many who enter leave in less than 30 days, and, fourth, another fairly large percentage are so mentally depressed by reason of being forced to leave home that they would be far better off were they to be properly controlled at home.

Of my 17 years of experience with the tuberculous patient, nine were spent in tuberculosis sanatoria, and the balance in private practice. It is not difficult, therefore, for me to understand why a sanatorium man should tell us that the sanatorium is the only place in which to treat tuberculosis. I care not where the patient is treated or by whom, but I insist that he be properly taught and thereby controlled. This is the best solution we know for the problem, today.

I am unfortunate if I gave the impression that exercise should be used in the treatment of active tuberculosis. It is impossible to cover the details of treatment in such a paper. The patient with active disease should be kept as nearly as possible at complete rest in bed. Graduated exercise has a very important place in the treatment of tuberculosis, but it should be commenced only when the active symptoms have subsided, and it should be prescribed only in carefully measured doses, and not left to the judgment of the patient as to how much, when and how to take it.

THE PRESENT STATUS OF TUBERCULOSIS CONTROL IN THE UNITED STATES.*

BY

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It is frequently my privilege to work in Texas in coöperation with the Texas Public Health Association and I have much enjoyed meeting the physicians and other tuberculosis workers, and have not minded your magnificent distances.

As cancer and heart diseases are not chiefly diseases of the earning and family-raising periods of life, tuberculosis still remains the chief economic and humanitarian problem of disease. Heart disease which takes now the most lives, takes 73 per cent of people after the age of 60 years. After 60 years of age, tuberculosis is an unimportant factor.

THE TWO SCHOOLS.

There are two schools of thought in the study of tuberculosis:

A. One school of tuberculosis holds that racial stocks and hereditary influences largely beyond the control of man, determine the changes in the prevalence of tuberculous disease; that the reduction of 50 per cent in the death rate of tuberculosis since 1900 is not due to environmental factors, and is part

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of the decline that antedates the tuberculosis movement by decades; and that the tendency to have tuberculosis is inherited by a tuberculous stock, and that these considerations are true, despite the fact that tuberculous infection is prevalent nearly everywhere man is found. Extreme advocates of this theory hold that by encouraging the reproduction of phthisical stocks, the reduction of the tuberculosis death rate has even been delayed by the campaign against this disease.

B. The other school, to which practically all public health workers belong, holds that the great recent decline in the tuberculosis death rate and the long slower decline which preceded it, were both due to the improvement of environment resulting in the general well-being and greater happiness of the population. You and I, according to advocates of this school, may in various ways influence the decline of tuberculosis in our own communities. A leading advocate of the racial causes is Prof. Raymond Pearl of Johns Hopkins University, and of the environmental causes is Dr. Haven Emerson of Columbia.

For light on this difficult question we may turn to the fact finders the statisticians. Dr. Louis I. Dublin, statistician of the Metropolitan Life Insurance Company, has weighed the facts involved as they come from our various census bureaus and from industry and finds a wealth of determining facts at hand. (Proceedings of Annual Meeting, National Tuberculosis Association, Santa Barbara, California, 1923.) Dr. Dublin find that the tuberculosis death rate in states with great *urban* centers is much larger than those with largely *rural* population. This he, with the environmentalists, explains on the ground that rural people generally have more nearly the proper food and shelter than those of the urban groups. He cannot find that Nebraska has a fitter population than Delaware, but the Nebraska death rate in 1921 was 37.1 per 100,000 population, while that for Delaware was 140.6. The higher rates of the larger cities are in part explainable by the congestion of living quarters and the indoor work of the people, while the lower rates of rural workers seem due to the lesser congestion, greater happiness and more food. One exception to this might be, however, the agricultural depression from which we are now happily emerging. The improvement of environment which became operative before the tuberculosis campaign, seems to largely account for the early decrease in tuberculosis. The male tuberculosis death rate among Metropolitan policyholders from 1911 to 1920 was 36 per cent higher than that for females. Among negroes this excess of the male death rate was only 8 per cent. The males show the greatest mortality when they are in the years usually devoted to heavy labor and factory routine. Men also dissipate more than do women. Yet the greatest mortality from tuberculosis in women is in the age groups from 10 to 25, when sexual disturbances—including child-birth—are greatest. That such environmental causes as above listed in both men and women coincide with the years of greatest tuberculosis mortality, seems to strengthen the position of the environmentalist.

Racially, Jews and Italians are somewhat more resistant to tuberculosis than are Irishmen and Swedes, while still other differences are distinguishable between the other races; the negro and the Indian showing higher death rates than others. These differences seem to be not fully explained by economic differences of the families studied. Yet the statisticians find that economic differences are causing great diversities in the tuberculosis death rate of each of these racial groups.

Environment as expressed by *occupation* also counts in tuberculosis mortality. In England, it was found that, between ages from 25 to 65, for every 100 deaths of farmers in a given poulation, there were 205 deaths for shop-keepers, 317 for brewers, 408 for brass workers, 587 for lead miners, 817 for cutlers and 1,200 for tin miners. (Intermediate occupations are omitted.) So, in the light of such striking facts, the National Tuberculosis Association and its affiliated state and local associations, including the Texas Public Health and several Texas county associations, together with public health workers generally throughout the world, are seeking to prevent tuberculosis through the improvement of environment.

HOW THE TUBERCULOSIS CAMPAIGN INFLUENCES ENVIRONMENT.

A. By Education.—Education is the corner stone of the campaigns against tuberculosis. This educational campaign is carried on by the use of annual meetings of the associations, the largest of which, like the National Association, publish proceedings, also by motion pictures of popular nature, and stereopticons, while books, pamphlets and circulars, are distributed annually by the millions.

To expedite this circulation, the National Association prints literature in wholesale quantities, aided by a $40,000 revolving fund, providing state and local associations with

approved literature at merely the cost of production. Scores of local tuberculosis associations, most of the state associations, and the National Association publish monthly bulletins of information for more or less wide circulation. The *Round Up* of the Texas Association is typical of these journals. Besides this, the National Association publishes the self-supporting *Journal of the Outdoor Life* for patients and workers, while for research workers and students of tuberculosis it subsidizes the excellent magazine known as *The American Review of Tuberculosis.*

Foremost in the group of health education activities is the Modern Health Crusade which has taught health habits to millions of school boys and girls, and which is still going strong with 45,000 enrolled in Texas. The guiding document of the National Tuberculosis Association in regard to health education, as of other progressive agencies interested in child health, is the joint report on Health Education of the American Medical Association and the National Education Association, which is jointly published and distributed for 50 cents each from the offices of the National Educational Association, in Washington, D. C. Dr. C. E. A. Winslow of Yale University, is authority for the statement that the educational method developed against tuberculosis is as great a tool of prevention as was the discovery of the tubercle bacillus by Koch, in 1882.

B. By Sanatoria. — From 1904 to 1925 the number of beds in tuberculosis hospitals and sanatoria in the United States, increased from 6,000 to over 66,000. The county tuberculosis sanatorium is at present being advocated as the best type of institution. An institution of this sort will be dedicated on May 12th at Beaumont, Texas. Each sanatorium bed cares yearly for about three patients on the average, so there are 200,000 thus cared for annually. A parallel movement that practically eliminated leprosy was the establishment of some thousands of leprosaria in Europe from 1300 to 1600 A. D.—one of the most valuable gifts to civilization from the Dark Ages!

C. By Tuberculosis Clinics.—Clinics are an aid to early discovery and supervision of ambulant patients. The first tuberculosis clinic in the United States only dates back to 1894. (The first tuberculosis clinic in the world had been started by Dr. Phillip in Edinburgh, Scotland, in 1887). When the clinics were counted in 1922, there were found to be 568 devoted to tuberculosis. There are now many more.

D. By Public Health Educational Nursing.—Home visitation is needed. The first tuberculosis public health nurse began work for Dr. Osler in Baltimore in 1903. There are some 12,000 public health nurses at work in the United States, of whom 3,500 are found to be doing some special work in tuberculosis.

E. By Registration. — Unless there is good registration of tuberculosis cases with the health authorities the best work is impossible. In Texas not only is registration inadequate but even the more fundamentally needed vital statistics are largely missing. Is not one of the great services of the State Medical Association of Texas and the Texas Public Health Association the securing of adequate legislation on this subject?

F. By Preventoria, Open Air Schools and Summer Camps.—These agencies are listed in the order of the physical difficulty the child is having. The preventorium takes the most anemic or sickly child, the open air school the next, and the summer camp the practically normal child. The first open air school was in Providence, R. I., in 1908, and, including open window rooms which provide special rest and food, there are now at least 900 open air schools in this country. The preventorium is a more recent development and there are so far not over two or three dozen. Summer camps are more numerous and although their service to the child is not so great, it is a very valuable one. The summer camp is not essentially a medical institution—as all well run preventoria and open air schools must of necessity be.

G. By the Tuberculosis Consultant, who is a physician of well-rounded general training as well as a tuberculosis specialist, and socially a "good mixer." He is paid a salary and derives no income whatever from patients. He is able to assist any physician in his territory in the diagnosis of doubtful cases, but is unable to compete with them for patients. Consultants are a new tool in the campaign and became our common heritage from the Framingham survey conducted by the National Tuberculosis Association. Our managing director points out that the value of all consultants, and tuberculosis specialists also, is greatly enhanced when they have a greater knowledge of general medicine. He also holds that the service of general medical men is made increasingly valuable to themselves and others by a greater knowledge of tuberculosis.

H. By Industrial Medicine, which is a most inviting field for tuberculosis prevention work. (Yesterday we saw how railroads depend upon it). Tuberculosis societies are entering this new field rapidly,

and early workers are gleaning large returns. Particular corporations that have done much and become proud of their records are the International Harvester Company, Sears, Roebuck and Company, Dennison and Company, various railroads, and a few hundred others which cannot here be listed. Some fifty tuberculosis associations have launched into this field of health work, and while many disastrous failures have resulted from lack of experience and training, several splendid successes are now also being recorded.

I. By Nutrition Courses Provided for Anemic and Underweight Children.—Nutrition courses are first given in institutes to teachers and public health nurses, after which special classes of anemic children are selected by medical men, so that a school of 200 children frequently yields a class of 20 or 25, which meets weekly with nurse, secretary or teacher, who has been prepared to teach nutrition courses. Every nutrition course to be worth the name, must be under the supervision of a well-trained medical man. Dozens of tuberculosis associations having their educational clinics, sanatoria, etc., rather well provided, are now making nutrition a major work.

These various tools so helpful in tuberculosis prevention are revolutionizing all other forms of voluntary public health work.

THE NEXT STEPS IN TUBERCULOSIS PREVENTION.

A. Annual Physical Examination.—Progressive health workers now generally agree that annual physical examination offers the biggest hope for maintaining or increasing the drop in the tuberculosis death rate. This message was given us by that sage of preventive medicine, Dr. Herman Biggs, in his parting address at the time of the National Conference of Social Workers, in 1923. The American Medical Association has put within reach of all our medical associations the best known form for an annual physical examination that has yet been devised. If this newest tool in tuberculosis prevention, unlike some of its predecessors, results in additional financial profit, as well as additional work for physicians, then the public health workers will be the first to rejoice. Public health workers, as you know, have a guilty conscience because of the great number of times general practitioners have been called upon when there was no way whatsoever to compensate them beyond their own satisfaction in having done good. The slogan of the National Health Council is "Have a health examination on your birthday." All component agencies are helping and the movement is meeting a fine nation-wide response.

B. Health-habit Teaching. — The second most important step is doubtless the extension of health-habit teaching to children in all schools. It seems the logical way and the easier way to accomplish results. It will take time, it will take money, and the coördinated services of all physicians, Boards of Education and Boards of Health. The Health-Habit Movement under the leadership of the national, state and county tuberculosis associations is already much farther advanced than the younger health examination movement, but its great possibilities are not yet nearly reached. Medical men, tuberculosis associations and the various offical health and educational agencies will herein for years to come find a field of coöperation that may be made very beneficial.

C. Finance.—It is true that such campaigns as these, and those earlier mentioned, must be well financed. Insofar as taxation is concerned, the Medical, Tuberculosis and Public Health Associations combined seem to be the greatest creators of popular and legislative sentiment—when they unite on the right things they can usually win. This is well proven by the vast achievements already attained in county, city and state legislation. Where voluntary funds for tuberculosis prevention are needed, any county or state association is able to establish a substantial annual fund from the sale of Christmas seals provided by the National Tuberculosis Association, the agency for such seals in Texas being the Texas Public Health Association. The seal campaign in Texas in 1923 yielded for local, state and national purposes the sum of $70,000, of which 5 per cent maintains the national work, while 95 per cent is divided between the state and local work by the directors of the State Association. This percentage and procedure holds in all states. While the returns for Texas for 1924 are not yet complete, they will doubtless be at least as substantial as in 1923. In 1924 $4,500,000 resulted from the seal sale of the nation.

TUBERCULOSIS SPECIALIZATION.

I have been asked regarding the status of specialization in tuberculosis. Specialization seems to have its natural limits in the actual amount of tuberculosis in a community. Yet it also depends more or less upon the state of tuberculosis organization in that section. One physician in nearly each county or large town may without deserting his general practice, specialize in tuberculosis work. Such specialization is usually satisfactory to the physician financially, and of unusual benefit to the community. Financial success

in this matter, however, depends equally upon his being excellent in general medicine and in diagnosis of tuberculosis. Skill in tuberculosis diagnosis has been achieved by scores of physicians who have taken the special tuberculosis courses in Colorado Springs and at Trudeau Sanatorium, New York. It is the wish of many state associations that at least one physician per county would interest himself in the special problems of tuberculosis. For this one physician such specialization would doubtless be profitable, while to the community the service would be of greatest value.

ABSTRACT OF DISCUSSION.

Mr. Dwight E. Breed, Austin: I appreciate very much being asked to say a few words at this time. The negro tuberculosis problem has been one in which I have long been interested. Its relation to tuberculosis among the whites is apparent. Work for one race cannot help but affect the other race. Experience has taught us that privately financed charitable sanatoria have been, as a rule, unsatisfactory. The building of a tuberculosis sanatorium for whites by the passing-the-hat method of finance is undesirable; it is equally unsatisfactory for negroes. It is perfectly evident that the negro county tuberculosis sanatoria, or negro wards in connection with the regular county sanatoria, are a long way off. The answer then, of course, to the negro tuberculosis hospitalization problem in this State comes right back to the State Tuberculosis Sanatorium owned and maintained by Texas.

Dr. Z. T. Scott, Austin: In this State, through the state organization, 60,000 Mexicans have been visited and literature left with them. The negro lecturer has lectured to 100,000 negroes. Approximately 8,000 white school children were inspected by the tuberculosis workers of the state. All this was done at an expenditure of approximately $70,000. These activities have been directed by the agencies of the state society.

We need a negro sanatorium. They are very susceptible to tuberculosis and the hygienic conditions of the race should be improved. There are only 60 beds for them in the State. We are looking for the time when greater interest will be shown the tuberculosis patients, especially among the negro race.

Dr. H. O. Sappington, Austin: Tuberculosis conditions should receive our attention. This is a great public problem, especially a problem to handle the negro cases. The negroes are now making an heroic effort to establish a sanatorium of their own and they should be encouraged in this worthy undertaking. We have them with us, working, cooking and washing for us, and for self-protection we should care for them. On the other hand, we owe them our sympathy and protection.

Mr. Strawson (closing): Many thanks to you for your free discussion of my paper. With reference to the size of the institution needed, it has been noticed that the county or state needs about as many beds to care for tuberculosis patients as there are deaths in the county or state per year. Better results are obtained when the wards are not overcrowded. We experimented by using colored nurses in colored wards, but soon found that there was lack of confidence and respect shown them, and we are now convinced that white nurses are more satisfactory than colored ones.

A STUDY OF APPARENTLY HEALTHY CHILDREN OF SCHOOL AGE WHO ARE HIGHLY SENSITIZED TO OLD TUBERCULIN—PRELIMINARY REPORT.*

BY

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A ninety per cent inoculation of the adult population with the tubercle bacillus carries the assumption that we are recognizing clinical tuberculosis only when great pathological changes have occurred within the body. If so large a part of the people harbor the bacteria of this specific communicable disease, certainly a large number of cases are in a latent or occult stage. For this reason, a study of school children who are highly sensitized to tuberculin has been made, to discover, if possible, any tangible evidence suggestive of this poorly understood phase of tuberculosis.

SELECTION OF CASES.

One hundred children of school age were selected from several thousand case admittances to the El Paso City-County Clinic during the past three and one-half years; all were of Mexican parentage, so as to eliminate racial variations; the average period of observation was 12.23 months, and the ages ranged from 6 to 14 years, with an average of 10.5 years. These children were all in school and were supposed to be fit to carry on the work of children of like age. No child studied in this series had scrofulous lesions, old suspicious tuberculous sinuses, tuberculous adenitis, or phlyctenular conjunctivitis, or presented symptoms or signs of advanced pulmonary tuberculosis.

METHOD OF STUDY.

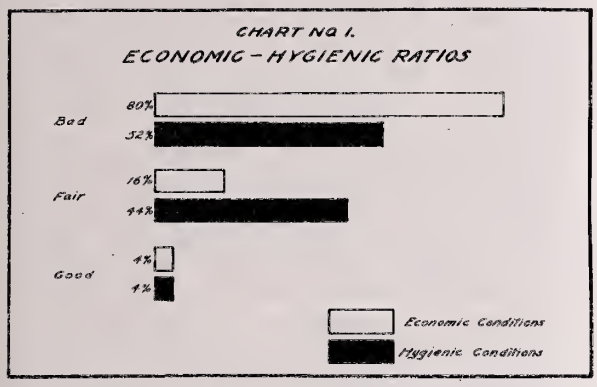
Home investigations were made by the social service in order to ascertain economic and hygienic influences in each case, as well as to complete historical data. A special effort was made to secure all available information concerning contagious diseases, pneumonia and direct contact with active tuberculosis. Weights were usually taken biweekly. A very complete physical examination was made, which was supplemented by *x*-ray and laboratory studies, when feasible. All of this series showed a high sensitization to old tuberculin, which was employed after the technique of Mantoux.

RESULT OF SOCIAL SURVEY.

Of the children studied, 45 per cent were boys and 55 per cent were girls; 52 per cent

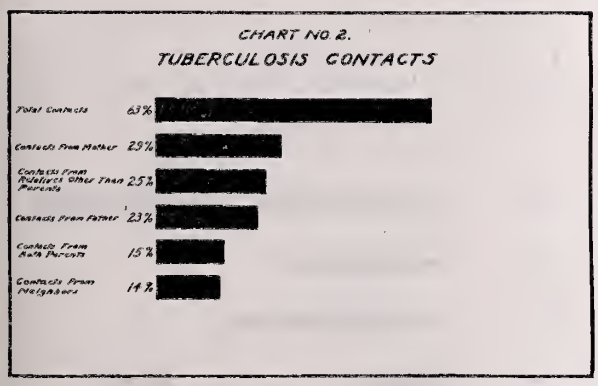
*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 5, 1925.

were born in the southwestern part of the United States and 48 per cent were born in Mexico and later came to the United States. The latter had spent more than one-half of their lives in the United States. Eighty per cent came from extremely poor families; 16 per cent came from families in a fair economic state, and 4 per cent were from fami-



lies rated as good. Hygienic conditions did not always parallel the economic. Unfavorable, or bad conditions were found in 52 per cent, fair in 44 per cent, and very good in 4 per cent. (See Chart No. 1.)

Sixty-three per cent of the cases came from homes with a very definite history of active tuberculosis. Frequently, several active cases were encountered in one family. The following sources of contact were found: in 23 per cent, the father; in 29 per cent, the mother; in 15 per cent, both parents; in 25 per cent, other relatives, and in 14 per cent, friends residing with the family. The home investigation of one child was frequently the means of locating several other children of

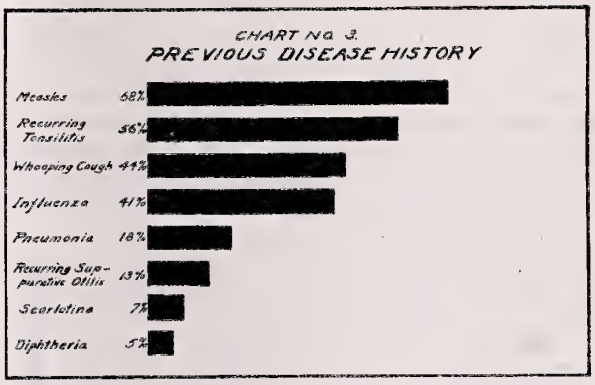


the same family who presented similar findings; 35 per cent of the cases in this series was secured in this manner. (See Chart No. 2.)

The survey revealed a shocking number of young children living in immediate contact with active tuberculosis. Poverty and bad hygienic conditions necessarily increased the number of the contacts. As a great many of these children had at some time lived in adobes with dirt floors, the habit of promiscuous spitting, which is extremely common with this type of people, offered excellent opportunities for dust-borne or ingestion infection. Mexican people are noted for their affection for their infants and promiscuous kissing is the common practice. Little thought was given to the source of milk supply, or to its care, for this change has come about too recently to have greatly benefited the children under consideration. Proper and adequate amounts of food, sufficient clothing, lighting and ventilation, and, last but not least, good habits of living, have all been directly influenced by the economic and hygienic conditions, and the educational standards in the homes. It is of the utmost importance to realize that the Mexican is a closely allied race to the American Indian and that their resistance to tuberculous infections in general bears a close resemblance.

THE ACUTE CONTAGIOUS DISEASES AND ACUTE RESPIRATORY INFECTIONS.

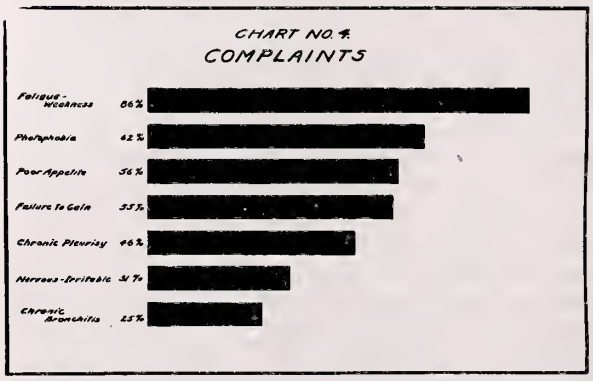
The relation of the acute contagious diseases and severe respiratory infections to tuberculosis, is of more than casual interest.



(See Chart No. 3.) Since most of these children came from congested quarters, naturally a number of epidemic diseases had been experienced. Forty-four per cent had had pertussis; 68 per cent, measles; 41 per cent, influenza; 18 per cent, pneumonia (all causes); 7 per cent, scarlatina, and 5 per cent, diphtheria. Nineteen per cent reported a definite impairment of health after measles; 19 per cent, after pertussis; 16 per cent, after pneumonia; 29 per cent could give no plausible reason for a decline in general health, except exposure to active tuberculosis. No definite reason for poor health was found in 17 per cent. Thus in this series pertussis had a morbidity of 43 per cent; measles, 27 per cent, and pneumonia, 88 per cent.

THE TYPE OF COMPLAINTS.

Subjectively, the complaints were fatigue and weakness, photophobia, occasional sticking pleuritic pains, and cough. Objectively, the complaints most frequently listed were



poor or capricious appetites, failure to gain inability to maintain a satisfactory scholastic standing, and nervousness and irritability. (See Chart No. 4.)

In 86 per cent, fatigue and weakness were frequently both subjective and objective. The common manifestations of weakness were shortness of breath, inability to compete in violent play, and the lack of desire to participate in ordinary pastimes of children of equal age. In 69 per cent fatigue was most noticeable. All ordinary activities were usually begun with vigor, but in a short time efficiency and enthusiasm seemed to give way to lagging, exhaustion, or indifference, and class work especially then became very irksome. Eye fatigue often accompanied physical exhaustion and was especially difficult to differentiate from photophobia.

Photophobia has received less notice than most toxic manifestations, especially in children. In 62 per cent, the hypersensitiveness to light varied from annoyance to pain and lachrymation, and was an actual handicap in ordinary school work. Not infrequently, refraction and vision tests failed to reveal the cause, and if fitted with glasses, little relief was secured. Many children complained of artificial light as well as of direct sunlight. When eye fatigue complicated the photophobia, conjunctival redness was usually present.

In 46 per cent, recurring pleuritic pains were reported and these were occasionally severe enough to be a major complaint. They persisted for weeks at a time, when upper respiratory infections were epidemic, and were difficult to relieve as they were often associated with cough. The costal pleural angles and the infrascapular spaces seemed to be the sites of predilection. Examinations coincident with the attacks, left little doubt as to the reality of the complaint.

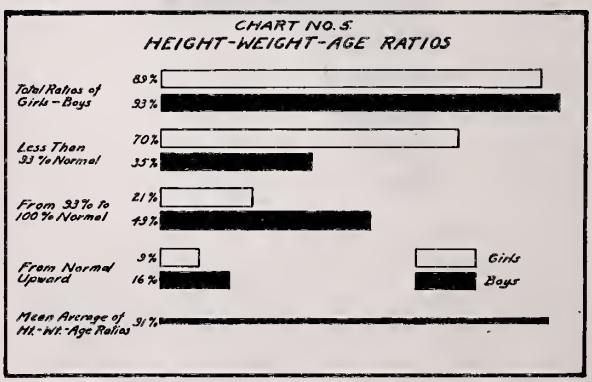
A non-productive cough and chronic bronchitis were very annoying and difficult to control in 25 per cent, because of frequent recurrences. These children sometimes became such an annoyance in the classroom that exclusion was necessary. The duration of the chronic bronchitis was invariably several weeks and a little accompanying temperature was the rule. Physical examination usually disclosed evidence of some mediastinal infiltration, with dry harsh, coarse rales, accompanying the cough.

A poor appetite, or an abnormal desire for food was noted in 56 per cent. It was astonishing to learn how often these children disliked milk, cereals, eggs and especially vegetables, but preferred the cheap confections so well dispensed at every school corner. Habit, education, and digestive insufficiency undoubtedly accounted for a part of this. Poor appetite and failure to gain were practically concomitant. Failure to gain occurred as a given complaint in 55 per cent, but a check showed this figure to be much too low.

Nervousness and irritability were often reported by nurses and mothers; such complaints were noted in 31 per cent. Many of these youngsters were bright and occasionally stood well in school. On the whole, the apparent overstimulation, both physical and mental, was pronounced. Unstable emotional states were associated with fits of anger, crying, or hysterical laughter. On account of poor scholastic work, many of the nervous and easily fatigued children as well as the mentally deficient were brought to us. Fatigue usually aggravated the highly neurotic and emotional state.

FINDINGS ON PHYSICAL EXAMINATION.

The relation of the age to the height and weight were carefully checked against the



charts of Bird T. Baldwin, Ph. D., and Dr. Thomas D. Wood, of the American Child Health Association, Washington, D. C. (See Chart No. 5.) A total check against a normal

average gave 91.48 per cent. or 1.52 per cent below the minimum standard. The girls averaged 89.6 per cent in contrast to the boys who averaged 93.6 per cent; the boys exceeded the girls by 4 per cent. The boys, on the average, were just within the minimum standard. Further analysis showed that 70 per cent of the girls were completely below the minimum standard, while only 35 per cent of the boys came within the same group. Twenty-one per cent of the girls were between a minimum standard of 93 per cent and normal, while 49 per cent, or the largest group of boys, were found belonging to this same class. Only 9 per cent of the girls were equal to the normal average, or above, while 16 per cent of the boys were found in this group. In no case did any child exceed the normal maximum standard, which is set at 110 per cent.

The study of the thorax in such a series is of much interest at this age. Postural defects, faulty carriage, muscular atony, emaciation, mobility limitations, and irregularities of contour of the chest, have an intimate relationship to toxemia, constitutional diathesis and diseases, and dietetic errors. Twenty-seven per cent appeared to have fairly normal chest outlines; 59 per cent showed a pronounced flattening; 10 per cent had pigeon or funnel-shaped chests, and 4 per cent were of the emphysematous type. In this series, 48 per cent of the children had winged scapulae. Most of the children showed poor statics, a slouching, forward thrust of the shoulders, flat anterior thorax, protruding abdomen, dorsal curvatures and, in general, evidence of pronounced muscular atony.

Other data from the detailed chest examination is interesting. On palpation, marked vocal fremitus over the paravertebral areas, was closely checked against a positive D'Espines sign. These findings coincided in 54 per cent of cases. Although vocal fremitus occurred in 81 per cent, a positive D'Espines was found in 62 per cent. Positive percussion findings over the apices and interscapular areas were frequently of significance. Impaired resonance in the interscapular areas was found in 62 per cent; in one apex, in 56 per cent; in both apices, 8 per cent. During this study, many of the children contracted mild upper respiratory infections, accompanied by diffuse, small, moist and subcrepitant rales, which sometimes lasted for weeks. This tendency was found in a large proportion of these cases.

The röentgenological examination was was carried out in about 20 per cent. In the main, the physical findings coincided with the *x*-ray report. Dense hilus shadows with heavy linear markings were the rule. Calcareous nodes were found in the mediastinal areas and in the lung parenchyma. Prolongations of the dense linear markings in a fan-shape arrangement in to one or both apices, appeared in most of the skiagraphs.

The examination of the scanty sputa in the cases with persistent cough, revealed the tubercle bacillus only once. A rapid pulse, averaging from 100 to 140 was present in 53 per cent, and under 100, in 47 per cent.

Some difficulty was found in checking the temperature, because all the children were in school. At the morning clinics a slightly subnormal temperature was often found, but the afternoon check of the same children in the schools not infrequently recorded a temperature of 99° F., or above.

Tenderness over the cecal region, associated with recurring attacks of colic, constipation and vomiting, has often been noted among these children. Very little temperature and practically no rectus rigidity accompanied these attacks.

Vasomotor disturbances were especially common. Cold, blanched, or mottled extremities, easy blushing of the skin wherever slight pressure has been made and then quickly withdrawn, and profuse axillary perspiration were very common. *This tendency was often exaggerated after a tuberculin test.*

RESULT OF TUBERCULIN STUDIES.

As previously stated, all the children included in this series were supposed to be well enough to carry on school work, mingle and compete with children of the same age, and so far as was generally known, they were apparently healthy. The sensitization to tuberculin in high dilutions bears a striking relationship to the discrepancies found elsewhere. Intradermal injections after the technique of Mantoux were employed, successively using strengths at three-day intervals varying from .001 mg., .01 mg., 0.1 to 1.0 mg., until a positive reaction was elicited with one of these quantities. Tabulated results were as follows:

CHART No. 6.

Positive Reactions	.001 mg.	.01 mg.	.1 mg.	1.0 mg.
Local	82%	12%	5%	1%
Focal	10%	0	0	0
Constitutional	13%	0	0	0

The type of tuberculin used was concentrated Koch's (O. T.), prepared by Parke, Davis and Company. This product was obtained in fairly large quantities and the desired dilutions were made at fairly frequent intervals. Clean pipets in preparing each dilution are necessary in order to maintain

accuracy. Distilled water with 2 per cent tricresol was used as the diluent. Such precautions avoid the deteriorations commonly experienced in the commercial dilutions, and uniformity is assured.

The interpretations of tuberculin reactions in children of this age should be cautiously undertaken. We feel that Dr. John A. Kolmer, in his recent work on Infection, Immunity and Biologic Therapy, best states the status of tuberculin: "The tuberculin reaction is highly specific. It is important to remember that tuberculin is an index of tuberculous infection, and not of disease in a clinical sense." Regarding the value in diagnosis, he adds, "A positive tuberculin reaction is to be regarded as a symptom or as another link in the chain of clinical evidence, but is not in itself indisputable evidence that a certain lesion is tuberculous, for it can never decide with certainty an otherwise doubtful diagnosis." In young children and infants a positive reaction usually conveys the idea of an acute process, but in older children the protean tendencies of the disease are considerably lessened. The value of the tuberculin in this series can best be estimated by analysis of some of the available figures.

From the data obtained, 82 per cent of the whole series reacted locally to .001 mg. of tuberculin. In that group of children falling entirely below the minimal standard, 90 per cent reacted to the high dilution. Among those who were found to measure between the minimal standard and normal, 92 per cent were also sensitized to .001 mg. of tuberculin. The reactions of maximum intensity all occurred in those children who were in the lowest group. Thus it has been established that a very high sensitization exists among the children of this study. From observations made in the selection of this group of children, similar reactions were encountered only in the following type of cases: tuberculous lesions involving the skin or glands, acute disease of the bone, phlyctenular conjunctivitis, tuberculous meningitis (early), and rapidly progressing pulmonary tuberculosis. In addition to the deficient measurements, the sensitization relationship is again found paralleling the other physical findings. Thus, fully 73 per cent had thoraces which were abnormal. These were frankly pathological in a large number. Sixty-two per cent were found to have pathological changes in one apex or the other. Some indications of mediastinal infiltration were found in 81 per cent of all cases.

The relation existing between the clinical symptoms and the sensitization of these children is quite striking; thus, 86 per cent complained of weakness and fatigue; 62 per cent had definite eye disturbances; 46 per cent were troubled with chronic pleurisy; 56 per cent had anorexia; 51 per cent had been under weight for a long period of time, and nearly one-third of the cases presented symptoms of nervous instability.

DISCUSSION.

The higher percentage of infection occurring in girls than in boys in this study, is probably due to a more intimate contact of the former with tuberculous patients and, consequently, the contracting of more infection. On the contrary, the boys frequent the playgrounds more and enjoy more air and sunshine. The same reasoning accounts for the greater percentage of girls in the extremely low age-height-weight ratios.

Epidemics of measles and whooping cough among Mexican children are always attended with terrific mortality and morbidity. Permanent scarring and hilus infiltration so frequently seen in the skiagraphs, doubtless date back to these infections. Again, as with tuberculosis, measles and pertussis seem to react as new infections in a poorly immunized race. These infections, together with many attacks of recurring tonsillitis, otitis media and the severe enteritis so often encountered in early infancy, certainly contribute to a lowered resistance.

A great many of the complaints are simply evidences of toxemia, and when taken in conjunction with the history, physical examination and the tuberculin reactions, are certainly suggestive of occult or a low grade active tuberculosis. The role of photophobia in this type of children seems very significant and deserves special investigation. Pleurisy in childhood usually has little significance, but it may accompany minute pathological changes of prognostic import. The absence of appetite may or may not be a serious complaint. In one domestic science class, the teacher who had charge of several of these children found that practically no food was ever taken without permission, which is rarely the case among healthy, hungry youngsters. The recurring pains over the abdomen and colic with vomiting, should be carefully investigated with special reference to tuberculous glands or appendicitis.

The intimate numerical relationship of the discrepancies in the measurements and physical findings, the symptomatology, the toxic manifestations, the percentage of exposures to tuberculous infections and the degree of sensitiveness to tuberculin, is striking. We believe that this is more than a coincident.

This data is certainly pertinent to a large

number of children who are permitted to mingle and compete with children in good health. Such children are an immediate menace to themselves and a potential danger in a few short years to the community. These children who are on the threshold of puberty and adolescence are soon to engage in an economic struggle, with the proverbial arrogance of youth. Dissipation, poorly adapted occupations, and the drain on the vitality incident to procreation, are certainly destined to break down the small reserve now so apparent.

CONCLUSIONS.

1. From the data, these two facts are evident: (1) Children who are below normal in health and measurements may be highly sensitized to tuberculin; (2) those children showing a high sensitization to tuberculin very often reveal serious physical discrepancies and a pertinent symptomatology.

2. The existence of a high sensitization to tuberculin in even apparently healthy children, should justify a careful study of such patients.

3. A pronounced sensitization to tuberculin in children of school age should be regarded as a symptom of some important relationship existing between a tuberculous infection and its immunity mechanism, the status of which additional clinical evidence must determine.

4. The method of Mantoux is especially adapted to tuberculin studies among children.

5. Mexican children show a higher sensitization to tuberculin than American children.

ABSTRACT OF DISCUSSION.

Dr. David Greer, Houston: I have found that the tuberculin reaction is of very little value in adults, but is of great value in youngsters up to 18 months of age. I have never seen a positive reaction in a normal, healthy child. So when I do get a positive test, it proves to me that this patient has had a tuberculous infection at some time and should be watched.

Dr. E. G. Schwartz, Fort Worth: In making a diagnosis of tuberculosis in the young, I have found that asthenia and fatigue are the most important symptoms. I would stress photophobia also as an important symptom.

Dr. G. Werley, El Paso: Tuberculosis is a very chronic disease. In its incipiency, a disease of this type will show only minor symptoms. One should not expect, then, to find the cardinal symptoms in all early cases. Minor symptoms must be depended upon to make the diagnosis early. I do not think that the tuberculin reaction should be confined to children; I have found it of importance in the adult. It has been my observation that many of the so-called neurasthenias react to the tuberculin test. I also believe that tuberculin has some therapeutic value. In Dr. H. H. Stark's practice, I have observed that latent tuberculosis of the eye responds to therapeutic treatment with tuberculin. In cooperation with Dr. H. H. Stark, I have seen many cases of phlyctenular conjunctivitis cured by turberculin. They did not relapse. I think it is a mistake to remove enlarged cervical glands in the tuberculous young person, as a rule, for I have seen them improve markedly after the administration of tuberculin.

Dr. Leigh (closing): It has been my observation that the occurrence of a high sensitization to old tuberculin in children in general coincides with other clinical evidence that points to a recent infection or a reinfection. Dr. Shropshire misunderstood the point relative to focal and local reactions. Vasomotor disturbances in particular are pronounced in some children after a tuberculin test. Attempts to study focal reactions with appendicitis of a tuberculous origin were not attempted.

STAMPING OUT TUBERCULOSIS FROM LIVESTOCK.*

BY

W. A. KING, M. D., City Health Officer,
SAN ANTONIO, TEXAS.

There are two reasons why tuberculosis should be eradicated from livestock. First, because it would be economical. The Federal Government Bulletin 1069 states that the cattlemen of this country are losing $40,000,000 per year from tuberculosis in livestock. The second, and by far the most important reason, is the protection of the public health.

However, it has been through the great loss sustained by the farmer and cattleman that we have been able to secure such large appropriations for the eradication of tuberculosis in livestock. Dr. J. A. Kierman, Chief of the Tuberculosis Eradication Division of the Bureau of Animal Industry, is responsible for the statement that at this time more that 600 veterinarians are devoting their entire time to the eradication of bovine tuberculosis. To the salaries of these must be added the expenses of the different states' departments, the traveling expenses, cost of tuberculin, tags, etc., so that the total runs into quite a large sum of money. The Bureau of Animal Industry and the Live Stock Sanitary Commission are assisting the people of Texas in this work. For more than one year they have been in my city assisting my department in eradicating tuberculosis from dairy cattle, and I cannot compliment these gentlemen too highly for the work they have done. They have tested 33,426 head of cattle and found 421 "reactors"—a little more than one per cent. They have done this with no expense to the city and the farmer, except transportation and assistance in handling the cattle, and the work has been thoroughly done. In herds where reactors were found, these herds were retested every ninety days until clean, and

*Read before the Section on State Medicine and Public Hygiene, State Medical Association of Texas, Austin, May 6, 1925.

also the farmer was paid a fair price for his reactors. I understand that Dr. Cloud and Dr. Williams will be in attendance at this meeting and will, I am sure, be glad to give any of you further information as to their plans.

The early writers on bovine tuberculosis were of the opinion that it was not transmittable to man, but this has been proven to be erroneous, as investigators in all parts of the world have shown. Although the relative incidence of bovine infection in man has been found to differ in different countries, in two respects they seem to all agree: First, that the bovine bacillus is not a great factor in chronic pulmonary tuberculosis but is very prevalent in cervical adenitis and other types of tuberculosis infection in children. In the British Royal Commissioners' report on 108 cases of all types except lupus, the human type was found in 84, and the bovine 19 times, the remainder being a mixture of the two types. In Berlin, among 28 cases of lupus, of all ages, 82 per cent were found to be of the human type, 14.3 per cent of the bovine type, and one mixed. From 1912 to 1916 Lydia Rovinnouibish studied 20 cases, of which ten were found to be of the bovine type. Griffith of England, in the *Journal of Pathology and Bacteriology,* in 25 cases of lupus found 13 to be of the human type and 12 of the bovine. Of 281 cases of tuberculosis in children observed at Edinburg by Charles Neuy, as reported in *Edinburg Medical Journal,* 1917, the bovine type was found 80 times among 102 children under 5 years, 45 times among 64 ranging from 5 to 16 years; in children fed with raw cow's milk, 37.5 per cent gave a positive tuberculosis reaction. At Paris, E. Burnett isolated the human type in 31 cases of glandular tuberculosis, 11 cases of joint tuberculosis and 16 cases of lupus—not a single one of the bovine type could be found. But in the *British Medical Journal,* in 1914, J. Phillip Nutch of Edinburg, announced the special investigation of 72 cases of cervical adenitis with 90 per cent positive of the bovine type, 84 per cent of the children in this class under 2 years of age having been fed raw milk. In the *Journal of Experimental Medicine,* 1912, A. J. Fraser of Edinburg reported on 67 cases of bone and joint tuberculosis, in which he found the bovine type 42 times and the human 22 times, the remainder being of a mixed variety. In his report he emphasizes very strongly one point: that the younger the child, the greater the preponderance of the bovine type. Four children under the age of one year were all infected with bovine type, and of 43 bottle-fed children, 35 were found to be infected with the bovine type of the disease. In the *Journal of the American Review,* 1910, Park and Krummede of this country, presented a series of 940 cases of all classes of tuberculosis, and the reports show the bovine type to be a negative factor in the production of pulmonary tuberculosis in man, and also a negative factor in bone and joint diseases, although in other forms of tuberculosis the percentage was high.

In cervical tuberculous adenitis, the bovine type occurred as follows: In adults, 2.7 per cent; in children from 5 to 16 years of age, 38 per cent, and in children under 5 years, 61 per cent. In abdominal tuberculosis, the bovine type was found: in adults, 20 per cent; in children from 5 to 16 years of age, 53 per cent, and in children under 5 years, 58 per cent. In tuberculosis of the bones and joints, the bovine type was found in adults, 3.3 per cent; in children from 5 to 16 years of age, 6.8 per cent, and in children under 5 years of age, none. In tuberculosis of the skin, the bovine type occurred in adults, 23 per cent; in children from 5 to 16 years of age, 60 per cent, and in children under 5 years of age, none.

H. Hassel of Germany, reports only 4 per cent of bone and joint diseases from the bovine type, but in generalized tuberculosis, 23 per cent; in cervical adenitis, 40 per cent, and in abdominal tuberculosis, 49 per cent. While we have no statistics available from all the different countries regarding the communicability of bovine tuberculosis to mankind, it would seem that there is sufficient evidence to convince us that milk containing bovine tuberculosis is a menace to the health of our country, particularly to the young children. And who can say that some of these early cases do not develop into pulmonary tuberculosis in later years? Is it not possible for the bovine type to remain in the human body for years, changing to the human type and producing the more serious forms of these diseases. I do not state this to be a fact, but who can say that it might not be possible? I have not attempted to differentiate the characteristics of the bovine and the human types, as it seems to me that this work must be done by investigators who have ample time and resources to differentiate between the two types.

However, it seems that the investigators have all agreed that the best procedure is the inoculation of rabbits. When rabbits are inoculated with the bovine type, a rapid and fatal dissemination of tuberculous foci takes place at once, while the human type produces only a localized and curable form of the disease. It has been said that only tuberculous reactors having a disease of the mammary gland, can give forth tubercle bacilli in the

milk; on the other hand, several of our best investigators have published reports which prove conclusively that tuberculous cows apparently free from mammary disease, expel tubercle bacilli from time to time. While we know that a tuberculous mammary gland does give forth a large amount of bovine tubercle bacilli, we are convinced that tubercle bacilli are secreted by tuberculous cattle apparently free from mammary diseases.

Griff McKay in the *Farm Journal* of July, 1924, cites the following case as an illustration of this point:

A farmer in Edgar County, Illinois, had a very fine cow that was apparently healthy in every respect, but upon examination she was found to react to tuberculosis. The farmer, not wishing to destroy such a valuable animal, removed the tag from the ear, placed there by the inspector, and gave the cow to a hired man for a milk cow for his family. In this family there were six children, the older not using milk, but the remaining five using milk from this cow. A year or two after this, one of the children became sick and was found to have tuberculosis of the spine. The remaining four children were examined and found to be reactors to tuberculosis. While no effort was made at this time to differentiate the bovine type of the disease, all the evidence points to the fact that it was the bovine type, inasmuch as the father, mother and the oldest boy remained perfectly well all the time, and all five of the children using this milk, became infected within a period of two years. This farmer was punished for his offense, but no punishment of him can restore the little children to health and bring peace and happiness into that home.

Brisco and McNeane have recently reported on 748 tuberculous cows without recognizable disease of the udder, 131 of which expelled tubercle bacilli in the milk. The New York Health Department, in 1909, undertook to determine three things: First, the percentage of milk in New York containing tubercle bacilli; second, the percentage of human and bovine bacilli present, and third, the effect that milk containing the bacillus of tuberculosis had upon children. The samples were taken from 40 quart cans from grocery stores, dairies, and milk stations in various parts of the city. Out of 105 samples, 16 or 17 per cent, were positive. Eight cultures were taken to determine whether the bacilli were of the human or bovine type, and the human type were found once, and the bovine type seven times. Milk dealers who were found with the infected milk gave this milk to their children; these children were examined, and 4 out of 16 were found to be tuberculous. How many of the children in your community have been infected by bovine tuberculosis? Don't you think it is time for us to join with the Government and state in the eradication of this great plague?

I am thoroughly convinced that all milk coming from tuberculous cattle should be looked upon with suspicion, and should not be used for human consumption. What about pasteurization? Pasteurization, properly done, is a good protection against bovine tuberculosis, if it is used in a reasonable time afterwards, but it is not always properly done. Also, a large number of our rural population cannot secure pasteurized milk, and there are many people in our largest cities who will not purchase pasteurized milk, if they can secure raw milk. So, while pasteurization is good, it does not reach all of the people, therefore, it cannot take the place of eradication of bovine tuberculosis.

If the time should ever come when our dairy herds are free from bovine tuberculosis, in my opinion, we will see a marked reduction of tuberculosis in children. However, there are some countries, like Japan, where the tuberculosis rate is as high as ours, yet they do not use milk at all in the younger ages. Nevertheless, we are faced with the fact that bovine tuberculosis is transmittable to mankind, particularly in the younger ages, and, therefore, it occurs to me that, regardless of what the tuberculosis rate might be in Japan, Turkey, or other countries where milk is not used as food, it should be our duty to eradicate bovine tuberculosis from our midst.

ABSTRACT OF DISCUSSION.

Dr. N. F. Williams, State Veterinarian, Fort Worth: The bovine type of tubercle bacillus is undoubtedly a factor in human tuberculosis. It has been as positively established that human tuberculosis is transmissible to the bovine. Time and investigation have established the interchangability of the various types, and, in consequence, our future work is promised a further degree of positiveness.

The San Antonio Health Department has exerted a real effort to rid the community of tuberculous dairy cattle. They have coöperated faithfully with the State and Federal forces to the end that some 500 tuberculous cows have been removed from the herds furnishing milk to that city. The menace that 500 tuberculous cows are to any city is readily apparent. Yet this 500 represents but little more than one and one-half per cent of all cattle tested in the San Antonio campaign. There are probably not many Texas cities or towns whose milk cows would show a lower per cent of tuberculosis than those of San Antonio when the eradication work was inaugurated. And yet, San Antonio was not concerned with the percentage, but with the problem of establishing a dependable milk supply from healthy cows. The 500 tuberculous cows eliminated are a tribute to the sense of responsibility of the San Antonio Health Department.

Some years ago Amarillo faced a similar situation, and has since prosecuted the work relentlessly.

The tuberculin test is necessary because of the difficulty in making a clinical diagnosis in cattle before the animals show evidences of the ravages of the disease. Roan King, a Shorthorn steer, was grand champion steer at the International Livestock Show in Chicago, in 1911 or 1912. He won in hot international competition. He had everything necessary to win—size, conformation, mellowness of hide, and that height of finish known to breeders and handlers as "bloom." He was sold at auction at a very high

price per pound, and was slaughtered for fancy Christmas beef. On slaughter he proved to have a generalized case of tuberculosis. His carcass was condemned and reduced to fertilizer—a total loss. Roan King's bloom, like veneer on decayed wood, concealed a rottenness that was almost unbelievable.

Milk may be contaminated by a tuberculous udder; it is easily contaminated at the time of milking, by feces or saliva from a tuberculous animal being switched into it by the animal's tail, or by other means. For these reasons, cleanliness, grooming, washing of udders, milking with dry hands, and the other usual regulations, are essential.

The matter of tuberculosis eradication is based on common sense, and common sense will govern when we professional men apply ourselves to this public health matter as we should.

Dr. H. O. Sappington, Austin: It is a fact that a sick cow cannot give pure milk. What we want is more milk and better milk. Any spot in the body that is infected with tuberculosis by means of lymph or blood vessels may carry the bacilli to the milk glands and from these into the milk, and thus make it unsafe for human consumption.

Dr. E. A. Johnston, Amarillo: Dr. Williams cleaned Potter County of bovine tuberculosis. There is not a case in the county as far as I know. I want to thank Dr. Williams personally and most heartily for the splendid work he did in Potter County, and we consider that we sustained a great loss when he moved away from our county.

Dr. A. H. Flickwir, Houston: We have long learned that we cannot depend on the looks and appearance of a cow. Some are apparently in fine condition, yet the tuberculin test shows positive in many instances, and should always be made.

Dr. King (closing): I thank each of you for your discussions and I am of the opinion that each health officer should coöperate with the State Veterinary Bureau, fully.

AN UNUSUAL CASE OF TUBERCULOUS INFLAMMATION OF THE TRACHEAL AND BRONCHIAL LYMPH-NODES.*

BY

HENRY HARTMAN, M. D.,
GALVESTON, TEXAS.

The pathological significance of tuberculous lesions of the tracheal and bronchial lymph-nodes, as is so well known, centers chiefly around the two more important changes that may follow the establishment of such foci of this important disease. The first and most common of these results from the fact that they form centers from which the causative organism may be distributed to other parts. The second of the more frequent dangers is pressure upon, and even erosion into, the pulmonary veins. An unusual case of tuberculous adenitis involving this group of nodes, found in our post-mortem work, is, perhaps, of sufficient interest to warrant publication of the report which follows.

The patient, a colored woman, aged 32 years, applied to the Out-Clinic Department of John Sealy Hospital for treatment on August 14, 1923. The chief complaint at this time was cough, a choking sensation, shortness of breath, and pain in the left shoulder and arm. A tumor mass in the suprasternal notch, together with less distinctive manifestations, led the extern to make a tentative diagnosis of hyperthyroidism, with the suggestion that the patient be admitted to the hospital for more complete examination.

Fig. 1. Specimen of heart, great bloodvessels and trachea from case reported. A.—Eroded Wall of Trachea. B.—Innominate Artery. C.—Tuberculous Tracheal Lymph Nodes.

The symptoms complained of, especially the cough, became progressively worse, and the patient was admitted to the indoor service of the hospital on the morning of September 3, 1923, at which time the temperature was 99° F., the pulse 112 and the respiration 28. An afternoon rise in temperature, varying from 1 to 3½ degrees and an increase in the pulse rate, were recorded during the first 15 days of her stay in the hospital.

The family history revealed nothing of interest. The patient had contracted measles

*Contributed from the Department of Pathology, University of Texas, Medical Branch, Galveston, Texas.

and whooping cough in early life. At the age of ten years, she suffered a severe attack of jaundice, which was followed almost immediately by influenza and pleurisy.

The illness complained of at the time of admission to the hospital, began seven months before with a severe cold and cough which the patient thought was due to exposure. This continued for some weeks with gradual improvement until the cough was much less annoying. Again in the spring, she developed a severe cold and cough and it was at this time that her chest "rattled" and she first experienced pain in the left shoulder. Attacks of difficult breathing made it necessary for her to sit up in bed. During such attacks her breathing was noisy and she noticed a rattling sound in her chest with each breath. A choking sensation was the cause of considerable concern to the patient. The history also calls attention to a loss in weight of about twenty pounds.

Physical examination at the time of admission revealed, as the most noticeable changes from the normal, an enlargement at the root of the neck anteriorly, immediately above the sternum, bullae-like skin lesions, and a brassy cough. The enlargement suggested goitre, except for the somewhat too low situation for such origin. This tumor mass, situated mainly in the suprasternal notch but extending more to the left of the median line, was nonpulsating in character and very hard on palpation. Bronchial fremitus was felt over the tumor. The bullae-like lesions, varying in size from that of a pencil point to the size of a twenty-five cent piece, were seen over practically the entire skin surface. The cough, described as typically brassy in character, was productive of small amounts of mucopurulent material. Shortness of breath was complained of and was especially marked on exertion. On auscultation moist rales, both medium and coarse, were heard scattered diffusely over both sides of the chest.

Laboratory findings: The sputum was negative for tubercle bacilli. The blood examination revealed 3,700,000 red cells, 65 per cent hemoglobin, and a normal white cell count. The blood Wassermann was 4 plus with both antigens. The *x*-ray report was as follows: "This case shows considerable peribronchial thickening in the right lung as well as an enlargement of the upper mediastinal shadow."

The condition of the patient was apparently much improved after a period of almost three weeks in the hospital. The afternoon temperature did not rise above 99° F., and the cough, described as typically brassy in charprovement. The patient, after having asked to be dismissed from the hospital on September 28 and while moving about the ward, suddenly developed what appeared to be a severe nosebleed. The bleeding increased and death followed a few minutes later.

POST-MORTEM FINDINGS.

External description: The body is that of a fairly well nourished negro woman. Numerous slightly elevated areas, measuring a centimeter or less across, are seen scattered over almost the entire body surface. These areas are found to be quite soft and

Fig. 2. Same specimen as in Figure 1, dissected. A.—Orifice of Communication with Innominate Artery. B.—Erosion into Trachea.

on section, no fluid is found in them. A tumor-like swelling is seen in the suprasternal notch which extends slightly more to the left of the median line. (The body is embalmed.)

Thorax: The anterior margin of the left lung does not come to the midline. A small amount of reddish fluid is seen in the pleural cavities (probably embalming fluid). The heart is normal in size. No changes from the normal are seen in the myocardium and heart valves. A number of small, slightly elevated, yellowish areas are seen in the aorta. The left lung is slightly more voluminous than the normal organ. Areas of consolidation are felt

throughout with larger intervening areas of lung tissue, that crepitate. On section, numerous dark, reddish consolidated areas, some of them measuring about a centimeter across, are found throughout, but become less numerous in the peripheral portions of the organ. Clotted blood is found in the divisions of the bronchial tree. The right lung shows a larger number of the consolidated areas. Erosion of one of the primary divisions of the right bronchus by a disease process involving a bronchial lymph-node, is seen. Clotted blood is found in the trachea and such clots are seen to extend down into the divisions of the bronchi. Nothing unusual is seen in the esophagus.

The tracheal lymph-nodes on the right side are found to be matted together in a mass which extends from immediately above the right bronchus at its beginning, upward along the side of the trachea for a distance of three and a half centimeters. This mass of enormously enlarged nodes measured four centimeters in its transverse diameter (the distance from the trachea to the right edge of the mass). On section, a yellowish-white appearance is made out with smaller, somewhat softer and more yellowish areas scattered here and there. The bronchial nodes also show enlargement, less marked, however, than that seen in the nodes above described, but with similar gross changes on section. The disease process responsible for the changes in the tracheal lymph-nodes, perforated into the trachea and into the innominate artery, with the establishment of a communication between the two structures. The perforation of the trachea is 4 centimeters above its bifurcation and the opening in the innominate artery is slightly over 2 centimeters above its point of origin from the arch of aorta. (See Figures 1 and 2.)

Abdomen: About 100 c.c. of a reddish fluid is found in the dependent parts of the abdominal cavity (probably embalming fluid). The spleen is slightly larger than the normal organ. The cut section shows the Malphigian bodies to be quite prominent. The kidneys and adrenal glands show nothing unusual, and the liver appears to be normal. The walls of the gall-bladder are thickened, and extensive, firm adhesions are seen between the fundus and neighboring structures. A blood clot of considerable size is found in the stomach and clotted blood is also found in the upper part of the small intestine. The pancreas shows nothing unusual.

Pelvic organs: The urinary bladder shows nothing abnormal. The uterus is the seat of two small subserous fibroid tumors.

Anatomical diagnosis:

Tuberculous lymphadenitis of tracheal and bronchial lymph-nodes, with perforation of trachea, innominate artery and a primary division of right bronchus.

Hemorrhagic infiltration of lungs.

Hemorrhage into stomach and small intestine.

Chronic cholecystitis and pericholecystic adhesions.

Uterine fibromyomata.

Miscroscopical diagnosis:

Tuberculous lymphadenitis (tracheal and bronchial lymph-nodes).

Tuberculous ulceration of trachea.

Hemorrhagic infiltration of lungs.

TUBERCULOUS LARYNGITIS.*

BY

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Prior to 377 B. C., Hippocrates described "ulcers in the tubes of the lungs." It may, therefore, be inferred that he observed laryngeal involvement. In 1600, Sylvius had recognized tubercles as an essential part of phthisis, but supposed them to be small lymph nodes. In 1704, Valsalva found at autopsy and described the first larynx that has been accepted as indisputably tuberculous.

It is a deplorable feature of the average American medical man's speech, and of his written papers that he uses words without due regard for exactness. This often leads one to gain an erroneous impression of his meaning, and also to depreciate his knowledge, unless he has established himself securely. In discussing tuberculous laryngitis, there are three much used words that are too often used indiscriminately. These are—Lesion, Erosion and Ulcer. A lesion may be defined as any perversion of normal cellular relation; an erosion is the most superficial destruction of tissue and is confined to the mucosa; while an ulcer is a destructive process which invades all tissues. The term "lesion" is inclusive, while the two other words accurately describe specific lesions and definitely ascribe to each its sphere of activity.

PATHOLOGY.

Tubercles in the larynx have the same life history in their inception, progress and termination as in any other part. They may be solitary, multiple, discrete or coalescent. They are affected by their tissue environ-

*Read before the North Texas Medical Association, at Denison, Texas, June 16, 1925.

ment. Their growth is rendered difficult by the denseness of the tissue they invade. In soft tissue, they grow more readily and can more easily diffuse their toxins, thereby producing swelling and irritation, and thus rendering muscles more easily tired or totally disabled. Gaining a foothold near articulations, they cause pain and restrict motion by the pain and by a partial or complete ankylosis; and being placed near cartilage, they induce its destruction and replacement with scar tissue.

Primary laryngeal infection once held a prominent place in medical discussions and the question of its existence was acrimoniously attacked and defended. Its former proponents can be excused, for then laryngology was in its infancy and there were lacking many of the refinements and essentials to diagnosis, which we now have. Proof of the fallacy of such a diagnosis is, that so many of these so-called primary tuberculous infections healed under antisyphilitic treatment.

"It is generally agreed that laryngeal involvment is the most serious complication of pulmonary tuberculosis," whether it be considered as a prognostic portent or as adversely affecting the patient's morale and alimentation.[1] This is essentially true since it is rarely an early complication, except as I shall hereafter mention. This is especially true when by tuberculous laryngitis, the laity—and an all too large part of the medical profession—mean the later stages characterized by odynophonia and dysphagia. This is far too narrow a conception of a condition which from the history and from certain minor changes that may easily escape an unpracticed eye, can be diagnosed much earlier. Given the exclusion of syphilis, the inexperienced should readily diagnose tuberculous laryngitis from these two signs alone, but if still doubtful, auscultation of the chest should certainly remove all doubts. This is a broad generalization, but the necessary exceptions are so few that they are negligible. I believe that you will all agree with me that besides the tangible and demonstrable, there are other factors that influence us in nearly all our decisions, which we may designate as the imponderable and which come of a man's assimilation or increment from experience. Hence, in an academic consideration of a subject, although we can only consider those which are ponderable, we must bear in mind that in diagnosis, he that scoffs at the imponderable is best described by the lines which declare

"But he who, self-sufficient, dares refuse
All aid of men, must be a god or fool."

In the diagnosis of tuberculosis, the wise internist will consult the specialist, and the specialist will often invite the aid of the internist, especially in those cases which may be designated "borderline" cases.

HISTORY TAKING.

All specialists, except the true internist, tend to become mentally lop-sided and to view things "as through a glass darkly." This is exemplified in the sketchy histories of our records. In taking a history, an acute man does not get a narrative only, but has the play presented before his eyes and often the visible is of more import than the audible, for the latter is necessarily subject to concealment and evasion, if not actual falsification. The acute observer is given the following objective signs to put him on the alert: First, a suggestion of a "burr" in the voice; second, a sudden voice change in the course of the patient's recital, and third (a sign which I have often observed but have nowhere in the literature found mentioned), the normal, clear voice of a patient with tuberculous laryngitis trails away gradually, and when he perceives this, he raises it to the normal volume and pitch again, or the same thing may appear in another guise, which, for my personal concept, I designate "the effort or heightened impulse" sign. In this, one hears the evidence of stress to initiate speech, and at each decrease of volume and pitch, perceives the same effort, or possibly increased, to restore it. Audition is reinforced by vision for one can see the effort because the laryngeal box starts, hesitates, and then by added muscular effort is brought to its proper position for that particular initiatory word. It is particularly instructive to ask about previous aphonias and voice weakness; this latter seems to impress the average patient even more than an aphonia. Of even more importance is the fact that some degree of hoarseness has been experienced without any connection with a cold. This is often referred to as a sense of "stiffness" in the throat and is most often noticed upon waking and during the two succeeding hours, or, as such patients very aptly express it, until they get "warmed up." However, 50 per cent usually have to have their memories prodded to recall it. How great a contrast to the neurotic's aphonias, or even hoarseness, which he describes in minutest detail, even to the day and hour!

1. One of the leading authorities in the United States, on tuberculosis, has invited the author's attention to the indubitable fact that tuberculous enteritis is a far graver complication.

PHYSICAL EXAMINATION.

Having obtained a carefully elicited history, all the while using our eyes as well as our ears, we have now to examine the larynx. Due to the irritability of some patients, this may necessitate the expenditure of a good deal of patience and a great deal of time, and even repeated examinations. Some are so irritable that even thorough anesthesia does not make the examination much less difficult. First, the larynx should be viewed as a whole, and then feature by feature, and in both instances during quiet breathing and during phonation. While the patient breathes quietly and regularly, we observe the color of the oropharyngeal mucous membrane, then that of the laryngeal mucosa, noting redness out of proportion to the patient's complexion, or duskiness, pallor or mottling, which is usually a lighter pink area upon a darker pink, just as there is an ischemic area within an erythematous blotch. Then the epiglottis, the aryepiglottic folds, the ventricular bands, the true cords, the arytenoids, and their interspace, are inspected seriatim. The form of the epiglottis is noted, whether outcurving or incurving and whether its petiolus is raised and reddened; the aryepiglottic folds to see whether they are thickened or have areas of infiltration; the ventricular bands to see if they permit a normal view of the true cords, and the ventricles; the true cords as to the form, color, approximation—or lack of approximation—and whether they are flattened or rotund. Then as to function, we observe whether they respond promptly, or sluggishly, or hesitate but finally act; whether one or both are paretic; whether one overrides the other or leaves an indentation where it comes in contact with its fellow; and if poorly approximated, whether this failure is due to one or both cords and whether it is due to mechanical obstruction or muscular weakness. It must further be observed whether they have the appearance of ground glass, or are checked like old china, or seem sprinkled with sand, or whether they have a reticulation of minute vessels, and whether they are dry or moist. All of these are important points to be determined.

The following questions must also be considered: Do the arytenoids show their landmarks, or, are they obscured by edema, and is this a strutting edema or is there a wrinkling of the mucosa despite the edema? Are they normally mobile or are they one or both restricted in their excursion and, if restricted, is this due to intrinsic or extrinsic causes?

Now we inspect the inter-arytenoid space. Here we may expect to find a fullness. This fullness may be due to a subjacent infiltration or to a hypertrophy of the mucosa from a long continued irritation other than tuberculosis. Where the cause is tuberculosis, it has some distinguishing features to declare against its being the product of an ordinary chronicity. These in the order of their frequency are: first, a peculiar pallor, very like the macerated skin of a stillborn child; second, a multiplication of the square area of the mucosa, which results in its being folded, the accordion pleat of the text books, which has the appearance of the skin of a washerwoman's hand, except that all the folds are vertically placed, due to the action of the arytenoideus muscles. Sometimes one sees a transitional or intermediate form which, in my opinion, is explained by the tuberculous condition being superimposed upon a chronically thickened mucosa, and in this case there is either a smooth, gray, velvety appearance, or that of a coarse suede leather. A further progression of this condition, where there is an ulceration, results in the mouse-eaten appearance. (It would be better expressed by "mouse-gnawed," which the furrowed surface and dentate edge of a mouse hole in a board will exactly visualize for us.) Second to appear, and second in importance, is the water-soaked condition of the arytenoids, the interspace and the aryepiglottic folds. This edema is by no means always a tense strut, but may exist with the overlying mucosa crinkled. This is very probably caused by the rather quick subsidence of a strutting edema which existed before the patient came under observation. It is my belief that these edemas are seen in those cases where the infiltration or tubercle formation is deeply placed, for where the tubercle is superficially placed, there is little edema. In the later stages this edema may extend by continuity to the epiglottis, without the latter being the site of tubercles. There is another aspect that is equally applicable to all the parts we have considered, and that is a lardaceous appearance.

DIFFERENTIAL DIAGNOSIS.

The triad of tuberculosis, syphilis, and malignancy, are to be differentiated, or more usually, a combination of two of these. Let us first consider the most frequent co-existence to be dissociated, which is syphilis and tuberculosis. They both have a tendency toward polymorphous manifestations and both occur most often in the same age limit and hence must often be superimposed one upon the other. I have outlined the history and the findings in tuberculosis, so it remains to do the same for syphilis. If the patient is patently honest and does not seem to be

evasive, we may draw from him, or her, a history of an initial lesion and of a rash, sore mouth or sore throat, shortly after the primary lesion, etc. Where the patient seems evasive, I have found it advantageous after a seemingly casual inquiry into his history, if the case is at all suggestive of syphilis, to suddenly ask, "When did you have syphilis?"

The examiner's seeming certitude that the patient has had syphilis, tends to force him to tell the truth. I have seen this maneuvre extract the truth when others had failed to draw it out. In histories, there seems but one thing common to both, and that is an apathetic state. When we come to examine the syphilitic larynx, if it is a recent affair, we will usually find mucous patches and a laryngitis without the usual subjective symptoms of the non-luetic type. There is no voice weakness or tire, and ordinarily, there is a raucous quality. There is a smooth swelling without any edematous strut and the erosions are larger and shallower than would be those of tuberculosis, because a tuberculous area of the same size would be an ulcer. Thanks to the prevailing custom of making Wassermann tests, ulcers are very rarely seen in syphilis now, as compared to former days. Suppose we know that the patient has a pulmonary tuberculosis and also suspect syphilis but, as is sometimes the case, it is impossible to determine to which the laryngitis belongs? We are not so handicapped as were the doctors of a few years ago, for they had to debate whether they were justified in making the therapeutic test. Thanks to the arsenicals, we can now make a therapeutic test without prejudicing the patient's fight against tuberculosis. I am aware that some men still use potassium iodide as a provocative agent, to raise the tubercle bacilli in doubtful cases. I wish to go on record as being against such a measure, the harm of which far outweighs its doubtful good.

Tuberculosis and malignancy generally have to be differentiated in a later period of life than do tuberculosis and syphilis, but it is unfortunate that the dictum that "malignancy is a disease of age" should be so firmly implanted, for, though it usually is a disease of "age," it is unquestionably a disease of *any* age. I am unfortunate in having had my experience in tuberculosis largely limited to the study of young men from 20 to 35 years old. The differentiation in old age is rendered still more difficult by a change in the morphology of tuberculous laryngitis, for one might say that the disease too has aged and tends more to the fibrotic type. What in the young is usually a soft swelling and an ulcer, becomes in the aged firm, and instead of ulceration, there is the formation of tumefactions and excrescences.

As said before, the prodromal symptoms of tuberculosis and malignancy are practically the same, and if the malignancy is intrinsic, there is no nodal involvement to help. One must make a careful chest examination by auscultation and by x-ray, for both tuberculosis and malignancy. Esophagoscopy may be required to determine the integrity of the party-wall. These still not satisfying us, we must get the patient's consent to remove all the involved area if possible, and if not, as large a specimen as we can get, and submit it to a pathologist. Previous to this section taking, we should get the patient's consent to whatever operative procedure is indicated by the pathologist's report. Failing to get the patient's consent for operation, one would be well advised to withdraw from the case. In no situation is it more imperative to make a correct diagnosis, and make it quickly.

Tuberculosis kills and maims far more of mankind than any other disease which is so amenable to control and which offers so favorable a prognosis when diagnosed early. It is as devastating as the plague, but though a few cases of the plague would throw any of our communities into a feverish activity to control it, yet we seem strangely indifferent to tuberculosis which is daily taking its toll of life. I believe that the most terribly tragic cases which I have met with, were tuberculous people lost because of, shall I say, our carelessness or our ignorance? We should make earlier diagnoses and start the fight against the ravages of tuberculosis, being assured that by so doing, many will be saved to a life of usefulness.

What of laryngeal involvement? When diagnoses are made earlier and proper treatment is instituted for the pulmonary tuberculosis, laryngeal involvment will decrease. What of those who come with it to us for treatment? These must be more thoroughly controlled and not looked upon as hopeless cases. The prognosis is, of course, first indicated by the pulmonary involvement, but not by it alone. A second factor is the patient's coöperation. If he is willing and tractable, much can be done for him with good effect.

CASE REPORT.

A young man who had had tuberculosis for 18 months was admitted to the hospital without any laryngeal symptoms or signs other than a redness, which might conceivably have been consonant with his complexion. The course of his case was variable, being first toward improvement or quiescence, and then toward further progression of the tuberculosis. Finally, he had hemoptysis, which the chest man did not believe was due to a pulmonary hemorrhage. Examination of him, at this time, showed the

petiolus to be red, swollen and ulcerated. Upon being examined, he retched horribly, even when the tissues were well cocainized. Treatment was instituted, but it became necessary to treat him before his breakfast to prevent his vomiting it.

He coöperated manfully, however, and eventually overcame his tendency to retching. The ulceration advanced like a serpiginous ulcer, but one can imagine my joy to see healing follow this advance. From the epiglottis, it followed the ventricular bands, and as sailors say, "boxed the compass." This patient's larynx healed and was normal in every respect except for three small nodules which later disappeared. This satisfactory condition persisted for two years without recurrence. After that time, I lost contact with the man and so cannot say what the ultimate result may have been.

CONCLUSIONS.

1. The prognostic gravity of tuberculous laryngitis has, unfortunately, been magnified out of its true proportion by such books as Camille, and such operas as La Boheme, since they portrayed the last or ulcerative stages of tuberculosis.

2. The *sine qua non* in handling this condition is early recognition and coöperation between the internist and the laryngologist.

3. The patient must be dealt with frankly, thus securing his coöperation, without which treatment is futile.

4. Nothing has ever been, or will ever be, accomplished by approaching it in the spirit of "forlorn hope," or last resort.

5. The sole reason for this paper is not to tell you new things but to insist upon careful examinations by the general practitioner and close coöperation between him, the laryngologist and the patient. And furthermore to insist that laryngeal involvment, except in the grossly ulcerative stages, is not a hopeless condition. It will be a great burden lifted from the tuberculous patient, when it is generally recognized that tuberculous laryngitis is not by any means a certain portent of approaching death.

Para - Thor - Mone - Lilly. — Parathyroid Extract-Collip.—A stable, aqueous solution containing the active principle or principles of the parathyroid gland of cattle, having the properties of relieving the symptoms of parathyroid tetany and increasing the calcium content of blood serum. It is standardized by its capacity to increase the blood serum calcium in normal dog: one unit being defined as one one-hundredth of the amount of solution required to cause an increase of 0.005 gm. of calcium in the blood serum of a 20 kilogram dog. Para-Thor-Mone-Lilly relieves the tetany of parathyreodectomized dogs and by its continued daily administration in small doses, further attacks may be prevented. The product is a most potent therapeutic agent and its use may be attended with great danger unless due precautions are taken. It is claimed to be a specific in parathyreopriva and to have relieved acute and chronic tetany following thyroidectomy, so-called idiopathic tetany and infantile tetany. Para-Thor-Mone-Lilly is marketed in 5 cc. ampules, each cc. of solution containing 20 units. Eli Lilly & Co., Indianapolis.—*Jour. A. M. A*, Nov. 14, 1925.

MODERN OBSTETRICS.*

BY

IRVING T. CUTTER. M. D.,
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According to the statistics of the United State Census Bureau, deaths in the United States, due to childbirth, are recorded as follows:

	1922	1917, 1919 1920, 1921	Inc.	Dec.
Septicemia	5,335	5,504	.....	169
Phlegmasia alba dolens, embolus and sudden death	595	519	76	.....
Albuminuria and convulsions	4,032	3,819	213	.....
Other causes	4,695	4,860	.....	165
Total	14,657	14,702	.....	45

The year 1918 is left out, as the deaths were markedly increased then, owing to the influenza epidemic. These statistics cover a registration area comprising 73 per cent of the total in 1917, and increasing to 85.3 per cent in 1922. Figures are always unreliable in arriving at any conclusions, because there are so many factors which may influence the results. More accurate reporting and the increasing area of registration, undoubtedly have something to do with keeping the totals so high. On the other hand, it is undoubtedly true that the figures are lower than the truth, for many women die as the result of childbirth and are buried under other diagnoses, and many more die, sooner or later, as a direct result of injuries and sepsis received during labor, and efforts to cure them.

Ideally, sepsis is preventable, yet in 1922, there were 5,335 deaths from this cause. It is believed that a large majority of deaths from albuminuria and convulsions are preventable, yet there were 4,032 deaths from these causes. The same may be said of the deaths due to "other causes." Mortality from various causes during pregnancy is always with us, and no statistics are available; but it is believed that many women die during this period, whose deaths are preventable, providing they receive proper prenatal care.

Morbidity following childbirth, is a condition on which it is impossible to get figures. However, the large number of women seeking relief from pelvic troubles, many of whom date their symptoms from childbirth, would seem to indicate that obstetrics is far from what it should be. Asphyxia and injury during delivery cause many fetal deaths and the latter is a common cause of after-effects which are in evidence throughout the life of the individual. Many of these deaths and injuries could be prevented by better care during labor. It is, or should be, the aim of every doctor practicing obstetrics to lower the mortality and morbidity of mothers and babies;

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 6, 1925.

this can only be done by heeding the advice of those preaching modern obstetrics.

Obstetrics is a branch of surgery. To be sure, during pregnancy, care is mostly along medical lines, but whenever the uterus is emptied, either by nature or by intervention, the procedure is strictly surgical. In what other class of patients is surgical cleanliness more important or more difficult to obtain and maintain? In what other surgical condition is there such a large open wound, more or less inaccessible, which provides such a perfect culture ground for the growth of bacteria which may be introduced by manipulations carried out in an unsurgical manner? I venture to say that we will be in agreement in answering, "None," to both of these questions.

What is an obstetrician? A man who by predilection, training, experience, and study, is qualified to care for a woman during pregnancy, labor, and the puerperium. By "predilection" is meant one who enjoys the work; if it is not liked, the care given is apt to be superficial and slipshod. By "training" is meant one who has served as an intern in a general hospital and has followed this by special work in obstetrics. In addition to this, it is my belief that a doctor specializing in any branch of medicine or surgery is much better equipped for his specialty if he has had a few years of general practice. Pregnant women are no more free from medical and surgical complications than are the non-pregnant, and the obstetrician should be able to see his patients from an angle which may have nothing to do with his specialty. The obstetrician should be a surgeon; for which one of us can tell when we may be called upon to do a curettage or open the abdomen for a ruptured uterus, a caesarian section, or an ectopic pregnancy? It has been said to me that when these operations are indicated, a surgeon should be called in. I do not agree with this. The real obstetrician should be, and usually is, more competent to deal with these conditions than is the general surgeon who comes into contact with these cases only in the course of his general surgery; the obstetrician meets these conditions rather often and his experience not only gives him better judgment as to the procedure indicated, but also more skill in carrying it out. By "experience" is meant one who has had the training and who is carrying out the fruits of his training in his private practice as well as his public hospital work. By "study" is meant one who has the time and the inclination to keep abreast of the advances in obstetrics, by reading and by attendance at clinics.

The general practitioner is the one on whom falls the burden of doing the greater part of the obstetrical work. Very often he dislikes it, but feels that he must keep it up or lose the confidence of his families. A doctor will say, as has been said to me, that he does not have the time to give his patients a lot of prenatal care and personal attention during labor. This shows a lack of appreciation as to what modern obstetrics is and, practiced in this way, it is apt to become neglected. It has always seemed to me that if a doctor has neither the time nor the inclination to give these patients adequate personal care, he should not attempt their care at all. One of the chief reasons for this indifference towards this class of patients is the fact that the public is not educated as to the need for closer oversight during this trying period of a woman's life. Neither are they educated to the need for better fees for proper care. To show what is meant, the following is taken from a fee table: "Ordinary cases without complications (Fee is for urinalysis during pregnancy, confinement and necessary visits for ten days)—$50.00 and up; circumcision—$35 up; appendectomy—$150 up." If this is all doctors themselves think that proper obstetrical care is worth, how are we to convince the public that it is worth more? It is said that higher fees would mean hardship on many; yet there are several months during which the expense may be prepared for. The expense does not come out of a clear sky, as it does in a surgical emergency; but the surgical emergency is often paid for more adequately and more promptly than is the fee for obstetrical care. It is probable that if better fees were asked, patients would receive better care.

The process of bearing children is not, in an increasingly large number of cases, a simple physiological one. So many women have disturbances of one kind or another that pregnancy might well be called a self-limited disease of nine months' duration.

What is the use of all this prenatal care? This is a question which has been asked me many times and by all classes of patients. Strictly speaking, prenatal care has to do only with the period of pregnancy; as a matter of fact, it should go back farther than this—to the time of adolescence. Mothers should interest themselves more in the welfare of their daughters by telling them something of sex matters, by curtailing their activities at the time of their periods, and by seeing that they are properly dressed. Many girls make no change in their work and play when unwell, and continue to work hard, dance a good part of the night, ride horseback, play tennis and golf, and even go in swimming. This is believed to be a common cause of the frequent

uterine displacements and menstrual disorders which we see in our work. At the present time it is the fashion to be slim, therefore girls wear tight brassieres which cause pressure on the breasts, atrophy of the glands, and abnormalities of function when it comes time for lactation.

A woman should consult her physician as soon as she believes herself to be pregnant. If she has had normal periods before marriage and then skips one, the presumption is that she is pregnant, although a positive diagnosis is impossible to make until later. At times a fear of pregnancy seems to inhibit the menstrual function. Under these conditions it is better to consider pregnancy present until it can be definitely proved or disproved. At the time of the first visit, or as soon as possible thereafter, the hygiene of pregnancy should be gone into carefully and thoroughly, a history taken, and a physical examination made. Hygiene includes diet, exercise, bowel function, bathing, automobile riding, proper clothing, and coitus. The history might give an indication as to what to look for in the physical examination. Twins and abnormal babies seem to run in families; if there is a history of either, we should be on our guard. The story of a long hard labor may mean nothing, but it should make us more careful in looking for a possible cause.

The general physical examination may show some condition of the heart, lungs, kidneys, or other organs, which might have a definite bearing on the welfare of the mother or baby. If there is any suspicion of syphilis or gonorrhea, the proper laboratory tests should be made. A vaginal examination should be made for the purpose of discovering retroversions, tumors, etc. The diagonal conjugate, and the angle of the arch and outlet, should be taken at this time. If they are normal, no further vaginal examinations are necessary unless some abnormal condition arises later. It is my custom to see each patient twice a month during the first seven months, three times during the eighth month, and four times, at least, the ninth month. At each visit the blood-pressure is taken and the urine examined, including the sediment. There are always little things coming up about which the pregnant woman will want to ask questions. She will appreciate the interest taken and feels better when her various symptoms are explained. It is surprising how often signs of impending trouble are found if this plan is carried out.

Nausea and vomiting is usually considered by the laity, and too often by the physician, as a condition natural to pregnancy, and one which has to be endured. In the past few years it has come to be considered as a symptom of toxemia and there is no question but that, in a large majority of cases, it can be relieved or stopped by proper treatment. Untreated, it may necessitate interruption of the pregnancy. Early in pregnancy, sources of focal infection should be sought for and treated. The teeth and the tonsils are the commonest sites of these. It has been found that dental work and tonsillectomy can be done with a greater degree of safety than was formerly thought possible.

Irregular vaginal bleeding during the first few months, accompanied by pain on one side of the lower abdomen, should make us think of an extra-uterine pregnancy, especially if there is any history of pelvic infection or sterility. It must be remembered that many women will have some flowing at their normal times, during the first few months of pregnancy. Bleeding later on should make us remember that there is such a thing as placenta previa and premature separation. Of course, bleeding at any time might be a beginning miscarriage or premature labor.

Edema of the lower legs is very common during the latter part of pregnancy and is commonly of two kinds—passive, due to the interference with the circulation by the heavy uterus; and active, due to some derangement of kidney function. Edema of the face and hands is to be looked upon with suspicion. Edema of any kind should be an indication for making the proper physical and laboratory examinations and keeping in closer contact with the patient. Proper treatment will, in a large majority of cases, give such relief that the patient is able to continue her pregnancy without undue discomfort or danger. By frequent urine examinations and blood-pressure readings one will often find indications, especially in the later months, of an impending toxemia which may go on to eclampsia unless treatment is instituted at once. Many times, one finds a rising blood-pressure and albumen and casts in the urine in a patient who feels perfectly well, and sometimes, better than usual. I am sure that some of these would get into a serious condition if they did not have adequate prenatal care, and were allowed to wait until they began to have other symptoms. It has been my experience that a rising blood-pressure often appears before there are any urinary findings. Each patient should be constantly urged to let her physician know at once of any diminution in the twenty-four hour amount of urine, and of undue headaches, trouble with the eyes, edema, pain in the epigastrium, or bleedings.

Blood chemistry is occupying considerable space in the journals; the information gained by it seems to be of rather doubtful value as

a practical means of determining the diagnosis and prognosis in any given patient. A patient complaining of trouble with the eyes, especially those with albumen in the urine, should have the benefit of an ophthalmoscopic examination. If this is neglected and the patient suddenly goes blind it might cause many moments of self-reproach.

Pelvic measurements should be taken sometime during the latter part of pregnancy. It is my practice to take them towards the end of the eighth month. If they have been taken before this they should be taken again as, at times, there is a slight increase in the diameters as pregnancy advances. The size of the baby, as well as its position and presentation, should be followed from this time on. It is surprising to see how closely one can foretell the weight and size of the baby by constant use of the methods of McDonald, Ahnfeld, and Peret. Twins, hydro- and anencephalous, and other abnormalities, may be recognized at this time. If there is any doubt, an *x*-ray will usually clear it up. A breech presentation may be found. Usually this will correct itself, but it is safer not to rely on this but to correct it by external version; this can generally be done with considerable ease and can be repeated as often as necessary, until the head becomes fixed in the pelvis. By following the size of the baby and knowing the dimensions of the pelvis, we are in a position to know whether the baby is getting too large to come through its mother's pelvis. At times, there is found a serious disproportion between the two and one must consider the induction of premature labor or the possibility of caesarian section at full term.

It is my belief that a physician is negligent if he is not present during the greater part of the second stage of labor. If he is not, how can he know the condition of the baby and follow the progress of labor? At times, conditions will arise which will call for interference in some way for the welfare of the mother or baby. A malposition may be found, the correction of which may mean all the difference in the world in the final outcome. The fetal heart should be listened to with increasing frequency as labor advances. Many babies can be saved, if it is realized that a persistently slow fetal heart means a probable beginning asphyxia from pressure. If the doctor does not go to his patients until the perineum is bulging, he is neglectful of the best interests of both of his patients. In a great majority of cases abdominal and rectal examinations are all that is necessary in normal labors. I make it a rule never to make a vaginal examination unless there is some doubt as to the position of the presenting part or as to whether there is some abnormality causing delay in progress. All women are entitled to some relief from pain during labor, and I have used ethylene and oxygen for this purpose, with a great deal of satisfaction. It does not seem to interfere with the progress of labor and has not had any bad effects on the baby or on the amount of bleeding. We are all too prone to be in a hurry about the delivery of the placenta; it should be given a chance to separate and deliver itself before the uterus is maltreated by forcible expression. I give one-half ampoule of pituitrin as soon as the placenta is delivered and have never seen any reason to regret it. The fundus should be held as the baby is delivered and then held until the uterus is empty and is acting well. The mother should not be left until one is sure that there is no hemorrhage and that the uterus is well contracted and stays so. A patient with a rising pulse should never be left.

During the puerperium, personal attention should be given by frequent calls, and the treatment of the baby and its mother not left to well-meaning, but often ill-advised nurses or relatives. The bladder should not be allowed to get distended and the bowel function should be looked out for. The involution of the uterus and the character and amount of the lochia should be carefully followed. I allow my patients who have no tears or hemorrhoids to be up on a low headrest on the second day and require them to get over on their abdomen, after the sixth or seventh day, and sleep that way at night. The headrest favors drainage and the prone position tends to prevent the heavy uterus from sagging into a position of retroversion. The size of the uterus is my guide as to when a patient is allowed up. Some will be sitting up on the eighth day, and others will still be in bed on the fourteenth day or longer.

Do not forget that we have another patient in the baby. Whenever possible, my babies are turned over to the care of the family doctor or to a pediatrician. The first two weeks of a baby's life are very important to its future well-being, and nothing should be neglected in its care.

As it takes the uterus about six weeks to return to its permanent involuted condition after labor, it is advisable to have patients report at the end of this time for a discharge examination. Conditions may be found which, if treated, may prevent the need of more extensive treatment later.

There is nothing new in this paper, it is simply a repetition of what we all know but too often neglect to put into practice.

SUMMARY.

1. Statistics show that the mortality and morbidity of childbirth are not decreasing as they should.

2. Obstetrics is surgery and should be classed as such.

3. An obstetrician is one who, by predilection, training, experience, and study, is qualified to care for a woman during pregnancy, labor and the puerperium, and to meet any complications which may arise.

4. The general practitioner is the one who does most of the obstetrics, although he may dislike it and gives his patients very superficial care.

5. The public is not educated to the importance of prenatal care and the need for closer personal care during labor.

6. Obstetrical fees are inadequate compared with fees in other branches of surgery.

7. Prenatal care is of the utmost importance in lowering maternal mortality and morbidity. Personal attention during the second stage of labor has been shown to lessen maternal and fetal mortality and morbidity.

8. Too little attention is given the mother and her new-born babe during the puerperium.

9. All women should be urged to go to a hospital for confinement; it is just as important as it is to go there for an appendectomy.

ABSTRACT OF DISCUSSION.

Dr. Willard R. Cooke, Galveston: In our observation in the obstretrical department of the University of Texas we find two sources of mortality in obstetric practice. These are lack of attention to proper asepsis and to prenatal care. These remarks should be made to those who are not here today; and as it is impossible to get this knowledge to them direct, we can only do it through a body such as this and through education of the laity. We find that the chief causes of deaths are puerperal infection and eclampsia. Of the infected cases we have had, only two had been delivered by students. One of these cases had had a number of vaginal examinations and the other had had douches during labor, before coming under the care of the students. The toxemias of pregnancy give us trouble. The fulminant cases are difficult to handle. They are brought to the hospital in a moribund condition and are beyond any remedy. If we can have access to the cases throughout pregnancy, so that we can watch for prodromata, we are able to handle them more successfully. Our reduction of morbidity and mortality from eclampsia has been due to an increase in the efficiency of the prenatal service. We had a complete reorganization in 1920, and since that time our morbidity and mortality have improved greatly. The Red Cross service has been a great aid in educating the negro and Mexican population, especially in one section of the town. As a result, we see more cases of preeclamptic toxemia than formerly and less of actual eclampsia. Lately, we have seen only one or two fulminant cases and they were in patients that had not been seen by the Red Cross, had not attended the hospital out-clinic, or had not followed instructions. We are handicapped by ignorance and the negro factor. The mortality can be reduced by careful prenatal care, which should be started not later than the third month.

Dr. G. V. Morton, Fort Worth: It is not always possible to give our patients the best prenatal care; then we have to take the next best course. I have talked with doctors in the rural districts, and I expect the greatest majority live a distance from their patients and do not have the opportunity to see them very often, if at all. I talked recently with a doctor who lives in West Texas. His patients live from fifty to a hundred miles distant. Instructions can be given the patients anywhere, but it is impossible to see them as often as in the city. This doctor had even used a flour sack for a uterine pack. A clean sack was selected, boiled with the gloves and wrung out, the field prepared and the sack used as a pack the same as one would use gauze. This can be done anywhere, and any time. The results attested to by the doctor were excellent. We should impress upon our patients the importance of prenatal care, and should employ the very best methods our surroundings will afford. Our endeavor should also be toward keeping the patient's weight down. A pregnant woman should not gain over twenty-three pounds during the nine months. A rapid gain of nine to twelve pounds in four weeks during the last two months will often mean disaster to the mother, and much mental worry for the family doctor.

Dr. F. A. Pierce, Dallas: In every case of pregnancy we must be ever on the lookout for toxemia. The toxemias of pregnancy are probably due to the same cause that produces indicanuria. It is a disease condition in which we find indicanuria, and whether it means toxemia or not, we should immediately begin elimination as soon as we discover it. Even if all other tests are negative and we find indican, eliminants should be given and the patient should be dieted.

Most hospitals are now requiring rectal examinations almost exclusively. Many of the doctors who are doing obstetrics in the small places and in the homes, do not make rectal examinations, because they say it is not as satisfactory. With a little practice one can soon learn to distinguish the stage of dilatation without any trouble. In the hospital, vaginal examination is not as dangerous as in the home and therefore we should do more rectal examinations in the home than in the hospital. Not over three minutes are required to prepare for a rectal examination, while for making a vaginal examination at least ten minutes are required, especially if the examination is made correctly, and that is just the same as for delivery. When I started, three years ago, to make rectal examinations, the patients objected. It is surprising how few are the indications for a vaginal examination. After the habit is formed of making rectal examinations, the obstetrician will feel like apologizing when he is required to make a vaginal.

Dr. W. G. Harris, Plano: I wish to condemn the use of rectal examinations of a woman about to be confined. We teach and are taught asepsis in labor. What is the use of this teaching, if we are going to ignore it in the first thing we do, by putting the fingers in the rectum, the dirtiest part of the body? It reminds me of the man who lectured upon prohibition one evening and the next morning the boys found him drunk. His explanation was that he was doing all in his power to *destroy* liquor. Be consistent! Besides, no one can make as thorough an examination per rectum as by the vaginal route, and a real diagnosis is what we are after—that's the purpose of the examination.

Dr. E. F. Hamm, Mexia: I wish to emphasize the necessity of carefully looking after the patients who show nausea. Nausea is a sign of toxemia, especially in the pregnant woman. If we give patients a balanced ration, not over 1 per cent will be uncomfortable. If any pregnant woman who is nauseated, will eliminate meats and sweets, and live on raw vegetables and milk, the nausea will quickly disappear. If not, we may use alkalies intravenously with dextrose, etc., but nine out of ten to whom we administer alkali-producing foods, raw foods and vegetables, will pass through pregnancy successfully.

Dr. Cutter (closing): Prenatal care has certainly given us clinical results in the reduction of mortality and morbidity. Both have been reduced to a negligible degree. Not only is it beneficial to the mother, but also to the babies. We can never tell when we are going to have an abnormal delivery, and every precaution should be taken to avoid complications. Converting a breech to a cephalic presentation by external version during the last month, is one of the things which we have done with great success and satisfaction. We weigh all our patients and find that they gain from 20 to 30 pounds, the amount of gain being according to the normal weight and height, the amount and character of the food, and the amount of exercise that is taken. There is a rather slow gain during the first three months and then there is a fairly steady rise until just before labor, when there is, usually, a small loss. A rapid gain in weight is the signal to seek for some pathological condition. There has been a great deal of discussion as to the safety of rectal examinations in comparison with those made by vagina. Those that decry the advantages of the rectal examination say that pushing the posterior wall of the vagina into the cervix is just as dangerous as a vaginal examination made with the proper preparation. This may be true, but to my mind the advantages are that rectal examinations can be made without any preparation; they can be made more frequently, and there is often less pain. It is easy to make out the progress of labor, the amount of dilatation, and usually whether there is any malposition, prolapsed part, or placenta previa. We feel that we want to keep out of the vagina as much as possible; therefore we limit our vaginal examinations to those cases where there is some delay in progress, or where the position of the presenting part is doubtful. In a majority of cases, neither rectal nor vaginal examinations are made, reliance being placed entirely on abdominal palpation.

DON'T FRIGHTEN CHILD BY STORIES OF DOCTOR.

A physician who is a specialist in children's diseases recently declared his greatest bugbear is not scarlet fever, nor any of the other awful children's diseases, but rather the fright germ the parents have implanted in the minds of the children before sickness comes.

Parents can easily prepare their children for operations, so that even the pain and discomfort will not take away their faith in the surgeon. The mother's explanation before and after a visit to the doctor's office will keep away fear and dread of that office.

False stories to scare children are in themselves crimes, but a false story about a doctor is much worse than about the "boogy man who'll get you if you don't watch out."

"The doctor is your friend and he is coming to make you well." That is a *real* bedside story.—*Hygeia.*

RATIONAL SURGERY OF CANCER; ITS HANDICAPS AND LIMITATIONS.*

BY

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The work of the American Society for the Control of Cancer is based not upon any hope or expectation of improving the scientific side of the cancer problem, but, as its name implies, its aim is to control the disease by stimulating the medical profession to greater activity and, when possible, to aid the profession in the huge task of disseminating such information as may cause the public to act more intelligently when they become afflicted with cancer or any of the diseases which predispose to its development.

While the medical and surgical phases of this question, from the standpoint of diagnosis, are inseparable; and while the therapeutic phase of the problem has welded a huge and unbreakable link between surgery and röentgenology, I shall endeavor to avoid stepping upon the field of either medicine or radiology, except perhaps at a few ill-defined margins, where these may possibly need a little assistance.

Cancer is one of the most ancient, insidious, common, loathesome, misunderstood, maltreated, and fatal diseases which has afflicted the human race; and the hitherto most valuable agent for its cure, fire, is also one of the most ancient and common agents, though the most feared, and most misunderstood and misused of all therapeutic agents ever applied to this dread disease. The science of surgery has misunderstood and misused this valuable agent, and even, at times, heartily condemned its use as worthless and caused its abandonment for many decades at a time.

Surgery has not only fumbled with its most valuable weapon, fire, as was formerly expressed in the heated soldering iron, and has more recently found refinement in the electro-cautery, but it has permitted the charm of spectacular removal of large cancerous masses with the glittering knife to lead it into the deplorable error of undertaking the palliation or cure of a sufficient number of hopelessly incurable cases, to forever impair public confidence in the value and safety of the knife as a curative agent.

Formerly, the knife was wielded for the eradication of cancer, almost exclusively by surgeons of much learning, experience and skill, with only occasional successes to their credit; but, today, it is applied, without restraint, by physicians of limited surgical

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ability and training, in almost every small village. To an already popular prejudice against the use of the knife in the treatment of cancer, which was not wholly unwarranted, is added its misapplication almost daily in every populous county in the nation, by physicians who could, but will not, take enough interest in the subject to even familiarize themselves with the diagnosis, pathology and characteristics of incipient cancer, to say nothing of those refinements of surgical technique which have, after centuries of observation, secured the highest percentages of actual cure.

The final result of these surgical practices is that the total number of cancer cases permanently cured by surgery is quite small. It has been estimated by some to be as low as ten or fifteen per cent. Is it any wonder that surgery for the cure of cancer is in such bad repute?

Rational surgery of cancer is best comprehended by considering it the counterpart of irrational surgery, which may be profitably considered by analyzing the characteristics of surgeons upon whom much of the responsibility rests. Irrational surgery is done by the untrained, the spectacularly inclined, the overzealous, the mercenary, and the too sympathetic, all of whom are blind to the vital interests of the patient and to the future interests of those unfortunate individuals who are destined to have cancer and who will be compelled to face the issue of deciding what to do when they discover themselves to be afflicted with this mysterious disease.

The untrained doctor, with surgical inclinations, cuts into or dangerously close to cancer masses, often supposing them to be benign.

The spectacular surgeon cannot resist the opportunity of excising malignant tumors with much gusto, without sufficient investigation to ascertain in advance when a hopeless metastasis exists.

The overzealous surgeon does the same thing but with a different purpose, centering his mind upon the local lesion and forgetting evidences of hopeless infiltration and plainly visible involvement of organs that cannot be removed, and giving no heed to indications of multiple invasions which plainly render human aid impossible.

The mercenary surgeon who wilfully operates upon a cancer case, knowing that it is hopeless, is fortunately rare. He is unworthy of the respect of this great scientific profession and should be classed with criminals of the lowest order.

The too-sympathetic surgeon permits his sympathy for the patient and the solicitations of relatives and friends to warp his judgment, and either makes an unwarranted attempt to spare a removable organ or becomes so conservative and considerate of the cosmetic interests of the patient that he loses sight of the fact that a life is at stake, and, consequently he too adds to the failures of surgery.

Considering these handicaps, is it at all strange that persons afflicted with cancer frequently shun the surgeon and eagerly flee to the röentgenologist, or, unfortunately, even to the cancer-paste specialist, the barber, the druggist, the faith-healer, magnetic-healer, or any one else who promises "a cure while you wait"?

Competent surgeons are the first to be blamed, though unjustly, for the fact that so much meddlesome surgery is done, for the disrepute of surgery, and finally, for the fatal procrastination which results in probably fifty per cent of the cancer cases not applying to competent surgeons until after their doom is sealed. Though often unjustly blamed, they are not without fault. Probably the greatest handicap imposed by competent surgeons upon the science of surgery, is the utter disregard for the danger of contaminating a wound with live, active cancer cells, during the progress of operations which may otherwise be very sanely and skilfully performed.

The internist has the first vantage point in seeing the cancer patients in their earliest stages or when they are suffering from precancerous conditions easily cured, and should keep constantly in mind that he occupies the first line of defense against this enemy of mankind.

The radiologist holds the next point of vantage. Like a house of refuge, his office looks safe to those who fear danger, and they confidently accept his assurance of safety against the ravages of cancer. Surely he should not betray the confidence of those who are endeavoring to escape the usual end result of this fearful disease. Though the *x*-rays may be of invaluable service, the röentgenologist should guard against overconfidence in the destructive effects of *x*-rays upon cancer cells within cancer masses and lymph-nodes. He should not forget for a moment that a well-trained surgeon can, with a knife or cautery, safely remove more cancerous disease in ten minutes than can be done with the *x*-rays in ten months, and that the entire history of cancer indicates that the most obstinate and disastrous obstacle to the cure of cancer is procrastination, thus giving opportunity for hopeless infiltration and metastasis. Nothing is more alluring and deceptive than the slow melting away and healing over of a superficial cancerous growth treated by *x*-rays, radium, or cancer-paste,

while the deepest part of the mass may not be destroyed and the progress of the disease along lymph-bearing tissues may have but slight or no interruption.

Rational surgery endeavors to promptly remove cancerous lesions with a sufficiently wide margin of healthy tissue to avoid the likelihood of leaving any tissue which has been invaded by cancer cells. In doing so, the degree of malignancy should govern the surgeon in the matter of performing glandular block dissections in those cases which may not give visible evidence of the invasion. Rational surgery also requires that extra caution shall be observed in all apparently benign growths in which there is a possibility of malignancy. The surgeon should keep in mind a keen appreciation of the terrible damage he may do a patient, in the event of an error in diagnosis, which might lead him into the irreparable blunder of cutting into cancerous tissue when he is not prepared to do the major operation which may be indispensable for the patient's recovery and safety from recurrence. It should be remembered that to cut close to or into the substance of a malignant neoplasm without promptly removing it and all the invaded or contaminated tissue, and then closing such a wound to await a microscopic diagnosis which may be delayed several days, is one of the most unfortunate errors which can befall a surgeon and a trusting patient.

From our viewpoint, rational surgery requires that exploratory incisions into neoplasms, where the question of malignancy might be involved, should never be done with a knife and that an effort should always be made to make a clean, sterile incision with a bevel-edged cautery in such a manner that successful primary closure of the wound may be had in the event malignancy is not found. It is always a great advantage to the patient if the surgeon is prepared to have a frozen section for microscopic diagnosis, made before the wound is closed. These remarks should apply with special emphasis to all tumors of the breast which cannot with certainty be diagnosed prior to operation.

The surgery of cancer is limited by involvement of certain vital organs, by undefined infiltration and metastases extending into inaccessible regions, but, after all, recent statistics show that in the hands of scientific surgeons, in many of the very worst groups of operable cases, the permanent cures may reach twenty or thirty per cent, and in some classes of cases exhibiting only a low degree of malignancy which has not involved vital organs or metastasized, the cures often run from sixty to ninety per cent.

We should all remember that untold thousands may be saved by education which will eliminate blunders on the part of the laity, and by sane coöperation on the part of the scientific men who represent the entire field of medicine.

TRAUMATISM OF THE HEAD AND BRAIN IN CIVIL PRACTICE.*

BY

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The purpose of this paper is to present some of the conditions, the treatment and the end-results of traumata of the head and brain, which occur in civil practice. It is unnecessary to go into the classification of head injuries mentioned by war surgeons and others, as they are far too numerous.

There is possibly less unanimity of opinion as regards the principles of treatment of cranio-cerebral injuries than of any other type of wounds. Anything classified as neurological is often looked upon as baffling and difficult, and is usually given scant attention. With many people, the term "wound of the head" brings up a picture of the cranial injury alone, and does not reveal the damage done to the brain; but to the victim of the injury, what has happened to the skull is of far less moment than what has happened to the brain.

Trauma of the brain, as of other soft tissues, is followed by increased blood supply, with consequent edema, which give rise to increased pressure of the cerebrospinal fluid. As the cranium is a closed cavity, this increase of pressure reacts on the delicate brain structure, causing damage which will not be repaired so long as this increased pressure persists. The immediate results of a severe wound of the head, more especially a gunshot wound, is a group of symptoms due to a widespread disturbance of function, affecting in varying degrees the whole cerebral and bulbar mechanism. Loss of consciousness of varying depth and duration, general muscular flaccidity and disturbance of cardiac, respiratory and vasomotor action, are among the most striking of these general symptoms; but their exact pathological and mechanical basis is still imperfectly understood. Whatever this basis may be, the result is a suspension or disturbance of function from which recovery can take place spontaneously (except in patients who die outright or within a few hours). This is the stage of concussion or cerebral shock, with symptoms differing in no essential respect from those resulting from penetrating

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 7, 1925.

wounds of the head, and with which is associated the stage of cerebral edema. The effects of this state may be aggravated by the presence of effused blood, which either mingles freely with the excessive cerebrospinal fluid, or becomes more or less localized or circumscribed. Experience in a number of cases has shown that such hemorrhages are very rarely large enough, either to threaten life at once, or to demand immediate operative interference.

While the possibility of extensive bleeding must be remembered, this must not be permitted to loom too large. When hemorrhages of any consequence does occur, it is quite likely to be basal or inaccessible. It sometimes manifests itself after a duration of many hours, or even days, almost invariably giving rise to definite localized symptoms, superadded to those of general compression. If the cerebral edema and swelling are severe, the symptoms may be relieved by lumbar puncture. Any progressive loss of function usually points to the necessity for affording free drainage of the damaged brain, as this loss may be due to a secondary inflammatory process, which may induce extension of the area with permanent damage. It is very difficult to secure efficient drainage of the damaged brain, because this tissue swells so easily in response to inflammation, while the extra room, which the cranial cavity is capable of affording, is very small in relation to this swelling.

The question might then naturally arise, in some of these cases, "Is decompression operation essential, or would not lumbar puncture answer the same purpose?" One is not dealing with a permanent source of pressure like a tumor, but with a process which is self-limiting, provided the medulla is not implicated. It is well recognized that in these conditions of cerebral contusion, the brain shows marked tendency to absorb fluids and become edematous and often the cerebrospinal spaces contain an excess of blood-stained fluid. From observation it has become apparent that relief is sometimes afforded by a withdrawal of fluid. In cases of general compression, unless occasioned by progressive hemorrhage, relief by operation is not indicated, as the compression can usually be kept within bounds by repeated puncture. If loss of function is due to shock effect, recovery will usually take place.

The following cases may very well illustrate the conditions amenable to withdrawal of spinal fluid by means of a spinal puncture:

CASE REPORTS.

Cases 1 and 2.—The first two cases were girls, one fourteen and one sixteen years old. About ten days apart they were each struck by an automobile. Both were unconscious from three to four hours, and semiconscious for 24 hours. There were no scalp wounds except some bruises. The neurological symptoms were nervousness, restlessness and tossing, nausea, crying and rapid, weak pulse. Twenty-four hours after the injury, a spinal puncture was done, withdrawing about 30 cc. of fluid which was almost pure blood and was expelled with much force at the beginning. The fluid was allowed to flow until it began to drip and the pressure was relieved. Each case presented about the same symptoms. The *x*-ray revealed nothing except a small fracture of the occipital bone with no displacement, in the case of the 14-year-old girl. A spinal puncture was done on each girl every 48 hours until the fluid cleared up and the pressure was relieved. This required four different tappings in each case. Both patients were given a smart purge of calomel followed by a saline laxative. Their heads from the beginning were completely and continuously enveloped in ice. The patients were kept quiet in bed for six weeks, to prevent any future complications. During a period of about twelve months no complications have developed and both girls are attending school in the usual way. We know, however, that sufficient time has not elapsed to feel that they are safe from future trouble.

Case No. 3, was a child four years of age, who fell from a second-story porch, striking its head on the cement walk. The child was brought into Baylor Hospital profoundly unconscious, and remained so for 24 hours. He had a large hematoma on the right side of the head; a perpendicular fracture line could be easily made out. *X*-ray revealed a large fracture on top of head, extending perpendicularly across the left parietal bone and also across the right parietal, curving into the right orbit. There was no displacement of bone, but the fracture had a tendency to gape open. Lumbar puncture revealed the spinal fluid to be almost pure blood, which was expelled with much force. This patient was treated in the same way as the two preceding cases. The spine was tapped every 48 hours until the fluid cleared up and the pressure was relieved. Ice caps were applied to the head and the bowel given attention. The child was under observation for about two years and, though doing well, he displayed a slight nervousness at intervals.

If the effects of cerebral contusion are confused with shock, the condition may not improve until trepanation makes possible the evacuation from the intracranial chambers, of the clots and pulped brain, which occasion the pressure symptoms. For illustration, there is the so-called bursting fracture (comminuted) with widespread cerebral contusion. These cases can undoubtedly be best relieved by a properly conducted decompression. Massive fractures of the skull may occur without actual laceration of the scalp. These are the cases where withdrawal of fluid is probably but a temporizing measure, and gives only a brief period of relief, for the former degree of tension is regained, in a very short time, by the accumulation of fluid. In such cases it is probably better to do a subtemporal decompression combined with a lumbar puncture.

There is a widespread impression that the dura should not be opened. This impression,

I am sure, was born when asepsis and technique was less perfect. Unless the external wound is very septic no great risk is run. This condition may be illustrated by the following cases:

CASE REPORTS.

Case No. 4.—A Russian Pole, a baker by trade, 29 years old, was struck on the head by a blunt piece of iron which fractured the left malar and temporal bones. He immediately showed marked pressure symptoms, subnormal temperature, a pulse of 40 per minute, respiration slow, and he was profoundly unconscious. He was bleeding at the left ear, left eye and nose. These symptoms led me to believe that he had a basal fracture with pressure. The usual half-moon incision was made over the left temporal region, revealing a comminuted or bursting fracture. The fractured bone was removed from a space about two inches in diameter. A line of fracture was seen, leading down by the ear into the base of the skull and probably into the middle fossa. The dura was seen to bulge as the bone was being removed. When the dura was excised a stream of bloody fluid spurted some 6 or 8 inches high, on account of the great intracranial pressure. Some small clots of blood were removed from under the dura. The pulse began to improve immediately, even while under the anesthetic. The dura was partially closed with fine catgut, carefully leaving sufficient opening for drainage. A small rubber drain was placed in the angle of the incision and the scalp closed in the usual way. Ice caps were kept continously to the head and the patient was given the usual laxative remedies. The rubber protective drain was removed in 48 hours. This man was semi-conscious for about seven days. The stitches were removed on the eighth day and no infection occurred. The patient left the hospital in eighteen days, contrary to my wishes. At the present time he is well and actively engaged in his trade as a baker.

Case No. 5.—A boy fifteen years old was struck on the right side of the head by a wooden float which fell from the top of a standpipe seventy-five feet in height. A part of the parietal and temporal bones were broken away, and two or three large fragments were driven into the brain tissue, causing it to bulge into the open space, with a loss of a small amount of brain substance. The boy was profoundly unconscious for twenty-four hours, and bleeding from the nose and right ear. The pulse was almost imperceptible. He was not accessible to a hospital and was immediately operated in the home. The bone fragments were removed from an area of three and one-half by two and one-half inches. The dura was closed incompletely and the scalp was brought together, providing for drainage. The patient recovered rapidly and in three weeks he was out of bed. The end results were good. It has been fifteen or more years since the accident and the patient is married and is holding a good position in a railroad office, and no complications have resulted.

The great danger of infection of a compound fracture of the skull is impressive, particularly when the dura underlying the fracture has been torn. Dr. Harvey Cushing, during the World's War, reported between 50 and 60 per cent mortality in cases of dural penetration with infection. Meningitis may develop, abscesses may form on the cerebral hemisphere, or metastasis may occur in other parts of the central nervous system, causing paralysis. The following case will furnish a practical illustration of the line of treatment in this phase of head injury.

Case No. 6.—This young man's age was twenty. He was working in the field with an inmate of the Terrell asylum, who suddenly attacked him and dug him on the head twice with a hoe, the blade penetrating the brain and producing a bad fracture. The bones were replaced in practically normal position by another doctor, but the scalp wound became infected from the dirty hoe. Soon after this the patient developed a complete paraplegia. He could not feel the prick of a pin nor move a toe on either foot. We discovered some tenderness about the seventh dorsal vertebra, which we decided was a transverse myelitis or a secondary infection causing the paraplegia. Under local anesthesia the scalp wound was cleansed and drained thoroughly. The spinal canal was punctured, withdrawing three drams of clear fluid under only slight pressure. Ice was ordered to the tender spot on the spine and a purgative given. The young man remained in the hospital for about ten days when he began to have a slight movement in one or two toes. He was then removed to the Terrell Sanitarium and was under the treatment of another doctor. He recovered, seemingly, completely in about four weeks. He is quite well; no complications whatever have developed, and he has been accepted for the Navy.

In chronic brain injuries, with depressed fractures of the vault, epilepsy may result months or even years after the injury. This is probably due, not so much to cortic'e adhesions, depression of the vault or foreign body spicules, but to a permanency of cerebral oedema, which produces a chronic increase of intracranial pressure. The following cases may well illustrate conditions found in this group:

Case No. 7, was a boy sixteen years old. At six years of age he was accidently struck on the head with an iron rod, which produced a puncture fracture, just to the right of the median line, and in the region of the upper end of the fissure of Rolando. The exact time at which convulsions began was very indefinite, but he suffered with those seizures for six years. Then he was carried to another surgeon in a Texas city, and a small decompression operation was performed, using a transplant of a piece of fascia from the boy's thigh. The family stated that the convulsions ceased entirely for eight months after the operation. The boy then began to have more severe and more frequent convulsions than formerly, perhaps six or eight in one night. He would fall; his left arm and leg would become numb and contract, and he would be thoroughly unconscious of his own behavior. These spells would last only a few minutes.

When I first saw him at Baylor Hospital, he presented the following symptoms: The skin was cadaverous, pale and anemic looking. He was very stupid, both mentally and physically, and wanted to sleep most of the time. His appetite was poor; the temperature was 100° F., the pulse 110, and respiration 24; his bowels and kidneys were normal. On examination, we found a depression on the head, a little to the right of the median line. This was the remains of the former operation. The usual half-moon flap was made in the scalp, dissecting it away from the old fascia lata transplant which had grown

firmly to the dura, and also to the convolutions of the brain. The space was very much enlarged in the skull, the old transplant was dissected away from the dura, and the opening enlarged by cutting away a considerable amount of the dura proper, and then a very large transplant was taken from the fascia of the thigh, with all the fat possible, and placed in position over the brain, with the fat next to the brain. The flap was tacked with three or four stitches of catgut to hold it in position. A few strands of silkworm gut were used for drainage, which were removed in 48 hours. The scalp was closed in the usual way. The wound healed by first intention, and the stitches were removed on the eighth day. For 8 or 10 days, the boy had an occasional light convulsion, these growing lighter each time until they ceased entirely. He seemed to recover rapidly, was bright and had no trouble with his hand or leg. He gained flesh rapidly. I was able to follow this case for two years and during this period the trouble did not recur.

Case No. 8, was that of a man of eighteen years old, who was accidently struck on the head with an axe, which crushed the skull for a distance of about two inches. In the course of a short time he developed epilepsy, convulsions occurring irregularly, but continuing through some three or four years. When he first entered the hospital we found a rather large, robust and healthy looking young man. We could not elicit a clear-cut history from the family. We did a decompression operation, finding a piece of bone pressing on the brain; this was removed and the scalp closed. He was free from epilepsy for about one year, when the convulsions returned, seemingly as had as before. Two years after his first operation, he returned for further treatment. A second decompression was done, which was very much larger than the first; hemorrhage was very troublesome. A fascia lata transplant was taken from the thigh, with all the fat possible, and placed in position in the same manner as the previous case and the scalp closed in the usual way. The patient recovered and left the hospital after two weeks. Three years later, the young man's father told me that his son was perfectly well and had been so since a short time after the operation. He was performing heavy manual labor and making a living for his family.

CONCLUSIONS.

1. The *x*-ray may not always reveal the true injury. A lateral view sometimes fails to disclose slightly depressed fractures, while it almost invariably fails to reveal a fracture at the base of the skull. It is also quite possible to mistake irregularities of the skull, particularly those along the mid-vertex, for fractures.

2. It has become apparent that in many cases of acute injuries of the brain, without a depressed fracture or hematoma, relief is afforded by withdrawal of fluid by lumbar puncture.

3. In head injuries, perhaps more than in any other department of surgery, it is of cardinal importance for diagnosis and treatment to be kept in close and living association with pathology. In every case it is essential that the surgeon, before beginning the treatment, should make a determined effort to form the clearest possible picture of the actual condition within the skull of his patient.

4. The premise may be laid down that in any case of injury to the head, where there is a temporary unconsciousness which passes away and subsequently returns, there is a hemorrhage, probably attended by slow accumulation. If not relieved, this finally causes the death of the patient, or permanently damaging the brain, destroys his usefulness.

5. In cases with extensive injuries of the scalp and skull, with perhaps wide exposure of the brain, the prognosis is always better, under proper treatment, than the extremely ugly appearance of the wound indicates.

6. A massive fracture of the skull, with or without laceration of the scalp, is best treated by a decompression operation, combined with spinal puncture.

7. The ideal time for appropriate treatment of these patients having an increased intracranial pressure, is as soon after the cranial injury as the shock has subsided.

ABSTRACT OF DISCUSSION.

Dr. Frank Beall, Fort Worth: The trend of modern practice, as Dr. Hackler has pointed out, is toward conservatism in the treatment of head injuries. Lumbar puncture does not relieve edema of the brain. In addition to this, hypertonic solutions should be used, magnesium sulphate by mouth or per rectum or, in the severe cases, sodium chloride intravenously. Surgical interference should be reserved for cases with urgent symptoms or those with progressive hemorrhage.

Dr. F. A. Bird, Olympia, Washington: Treatment as outlined by Dr. Hackler, I believe, is the recognized treatment these days in the Eastern clinics. Even Dr. Cushing follows these same treatments. Fascia transplants give trouble unless fat is supplied. It is better to use the fat alone, without the fascia transplant. In most cases of concussion with edema of the brain, we use salt solution and spinal puncture.

Dr. H. R. Dudgeon, Waco: Injury and treatment of the skull has always been more or less in confusion. I feel indebted to Dr. Hackler for his report of these cases. The question of decompression was thought to be settled, though it is advised by Cushing even in cases of low pulse and shock. The line of treatment suggested by Dr. Hackler, spinal puncture, purgation, etc., seems to me to be the best. The use of the hypertonic salt solution seems to be of advantage. Some of the patients remain unconscious or subconscious for several weeks and get well. I have often wondered if a decompression would have helped such cases after spinal puncture and magnesium sulphate did not clear them up. I am glad to hear the report of the two cases of epilepsy. I have always felt that these cases had a very unfavorable prognosis.

Dr. Hackler (closing): I think Dr. Dudgeon's case should have been tapped early. I believe these patients should have a spinal puncture and that this should be repeated every 24 or 48 hours, until the fluid is clear and does not show signs of pressure. I have had no experience with the use of non-absorbable membranes.

PROSTATECTOMY: THE FOLLOW UP RECORD IN FORTY-TWO CASES.*

BY

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The experience of knowing the exact benefit that patients derive from surgery is all too rare and the vogue of sending questionnaires to patients relative to their postoperative condition is new. We have been impressed with the appreciation that patients show in answering these questionnaires, and also with the fact that many with poor results can be given a good result, if they will return to the surgeon for subsequent examination.

The records of the Harris Clinic up to January 1, 1925, show some one hundred and fifty prostatectomies. In the fall of 1924, I studied one hundred and twenty-eight of these cases from their admission until their dismissal from the hospital and certain very interesting data were found which was presented in a paper before the Southern Medical Association in November, 1924. On January 1, 1925, we sent out questionnaires to sixty-two patients who had had prostatectomies and were dismissed from the hospital in fair or good condition. Of this number, we have received replies from forty-two.

The questionnaires were as follows:

"How is your general health now as compared with before the operation? Does your urine burn you? Do you get up at night to urinate and how many times? Does your urine leak away from you against your will? Have you passed any stones or sand? Have you passed any blood in your urine? Have you consulted your doctor for any reason since you left the hospital and would you please tell me for what, and how you have been since?"

We have received complete data from these questionnaires in forty-two cases and this has been tabulated under the various heads of the questionnaire. Certain other additional data has been obtained from the history of these patients together with the follow-up record; this includes the ages, condition on admission, condition before operation and operative complications.

The oldest of these forty-two patients was eighty-two, the youngest fifty, the average age being sixty-seven. The condition of patients on admission was studied according to whether or not they had a benign or carcinomatous prostate and an estimate made of their general physical condition, based upon the case history, physical examination, laboratory and x-ray examination. This was designated as good, fair, or poor. Of the benign group, 11 were in good condition, 14 in fair and 12 in poor condition, on admission; of the carcinomatous group, 2 were in good condition, 1 in fair condition and 2 in poor condition, on admission. All of these patients were put upon preliminary treatment before prostatectomy was undertaken. This period varied from one week to to nine months. The condition before operation, on the same basis, was estimated to be good in 28, fair in 14, and poor in none.

It is inevitable that complications will accompany prostatectomy in certain cases. It took the following character in 17 cases: Preliminary suprapubic drainage was necessary in eleven; radium was used following prostatectomy in one, and x-ray in one, both of the latter being carcinomatous prostates; a ureter was torn in one operation and the urethra torn in one; there was a sharp postoperative hemorrhage in one, although this case did not result fatally; a partial prostatectomy only was done in one case.

The follow-up record gives the following data:

The general health was stated to be better than before the operation in 19, good in 12, fair in 3, poor in 4 and unknown in 4. A study of this data shows that thirty, or 71.4 per cent were in good health on an average for three years following operation, and three, or 7.1 per cent were in fair health, while only 4 are known to be in poor health. We found that 12 patients have died on an average of three and one-half years following operation, but their general health until the final illness has been stated by their near relatives as shown above.

Dysuria: Four, or 8.5 per cent, stated that they had occasional attacks of dysuria; two, or 4.7 per cent, had a moderate degree, but this was absent in twenty-eight, or 66.5 per cent, following operation.

Nocturia: The symptom of nocturia is due to more or less contraction in the size of the bladder, to varying degrees of cystitis and to relaxation of the internal sphincter, permitting a few drops of urine to gravitate into the posterior urethra. It is a common symptom following prostatectomy and in this group only six, or 14.2 per cent, had none; seven, or 16.6 per cent, had occasional nocturia; nine, or 21.6 per cent, got up once or twice each night; four, or 9.4 per cent, got up two or three times, and seven, or 16.6 per cent, got up three or four times. In other words, 64.2 per cent, of these patients had nocturia varying from occasional nocturia to four or more times each night.

Difficulty: One of the criticisms of suprapubic prostatectomy is postoperative obstruction. The encouraging thing about this

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condition is that the vast majority of these patients can be benefited by simple procedures. In this group, twenty-eight, or 66.6 per cent, had no difficulty; three, or 7.1 per cent, occasionally had difficulty; two patients, or 4.7 per cent, required the passage of sounds for relief; and two, or 4.7 per cent, required a punch operation for relief. To recapitulate, none of these patients had permanent difficulty of urination.

Incontinence: Incontinence, or the dribbling of urine, following operation is a very distressing condition. It is contended generally that the risk of postoperative incontinence is greater following the perineal approach than following the suprapubic method. In this group of patients, twenty-six, of 61.9 per cent, had no incontinence; seven, or 16.6 per cent, very occasionally dribbled a few drops; one, or 2.3 per cent, dribbled under conditions of strain, and one, or 2.3 per cent, dribbled a few drops every day. No patient had complete incontinence.

The passage of stone: Three patients, or 7.1 per cent, passed one stone each; none of them required surgical removal.

Hematuria: Thirty-two, or 76.1 per cent, had no hematuria postoperatively. Four patients had this experience, one being due to a renal tumor, one to a bladder carcinoma, and two were from an unknown cause.

Subsequent medical attention: Men of the age of these patients are more likely than not to require medical supervision for conditions not urinary. However, nineteen, or 45.2 per cent, of these patients had had no subsequent medical attention; one, or 2.3 per cent, was treated for cancer of the bladder; twenty, or 47.6 per cent, were treated for miscellaneous conditions, including pneumonia, bronchitis, epididymitis, carcinoma of the face, cold feet and cardiac dyspnea.

Result summary: In making this summary, I have endeavored to be honest and fair, both to the patient and to the clinic, in placing these patients in a particular category. Sixteen, or 38 per cent, had an excellent result from the operation; ten, or 23 per cent, had a good result, and six, or 14.2 per cent, had a fair result; while only three, or 7.14 per cent, had a poor result. In other words, twenty-six, or 61.9 per cent, had a good or excellent result, and thirty-two, or 76.1 per cent, had a fair, good or excellent result.

Deaths: There were twelve deaths; four or 9.5 per cent, were known to have died of carcinoma of the prostate; one, or 2.3 per cent, died of carcinoma of the bladder; four, or 9.5 per cent, died of miscellaneous causes, including terminal pyelonephritis and cystitis in two; there was an acute cardiac death in one; apoplexy with Parkinson's disease in one, and three, or 7.14 per cent, died of causes unknown. Of the patients that died, the longest period that one lived after the operation was ten years and the shortest, one year; the average period of time being three and one-half years.

CONCLUSIONS.

To make any sweeping conclusions from this comparatively small group of patients would be unwise. However, certain very important data are evident: First, the general result from prostatectomy is satisfactory in over 75 per cent of the cases; second, the general health of these patients after operation was as good or better than before operation in over 70 per cent. Dysuria or painful urination was a symptom which was absent in two-thirds of the cases, and of rare occurrence in the remainder. Nocturia is a symptom one would expect from preoperative cystitis and pyelonephritis, and occurred in varying degrees in 64 per cent of the cases. Difficulty of urination postoperatively is a condition of small moment. It was absent altogether in two-thirds of the patients, and where it did occur, was readily controlled by the passage of a sound or by a punch operation. Incontinence of urine was only of serious moment in one case, 2.3 per cent, and was distressing in none of the others. Hematuria is a symptom which indicates additional pathology. Occasionally, granulation tissue will develop in the prostatic fossa but in the majority of instances additional pathology must be sought. The deaths where the causes were known are readily explainable upon another basis than that due to the surgical interference: Five were due to cancer—four of the prostate and one of the bladder—while the four miscellaneous cases died of causes which surgery would not influence.

Honesty in tabulating results, frankness in discussing errors, and improvement in the handling of patients to be derived from studying the records of previous cases, are essential for surgical progress.

Germicidal Tablets of Potassio-Mercuric Iodide-P. D. & Co.—Tablets containing potassium mercuric iodide, potassium iodide and sodium bicarbonate, colored blue. (For a discussion of the actions, uses and dosage of potassium mercuric iodide, see New and Nonofficial Remedies, 1925, p. 239). This product is supplied in two forms: germicidal discs of potassio-mercuric iodide No. 2-P. D. & Co., each tablet representing mercuric iodide 3/8 grain, potassium iodide 3/8 grain and sodium bicarbonate 16 grains, and germicidal discs of potassium mercuric iodide 1/2 grains, potassium iodide 1 1/2 grains and sodium bicarbonate 45 grains. Parke, David & Co., Detroit.—*Jour. A. M. A.*, Aug. 15, 1925.

A DISCUSSION OF INTESTINAL OBSTRUCTION.*

BY

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In writing this paper the author has nothing new or original to bring before you, but due to the fact that the death rate from intestinal obstruction still seems to be far too high and hoping that some discussion may be elicited, which will be helpful, this subject has been chosen.

In practice it is necessary to distinguish between two great groups of intestinal obstruction: (1) A complete form which comes on suddenly, and (2) a form which comes on gradually and which is incomplete while it is developing into chronic obstruction.

The cases of acute intestinal obstruction may be regarded as naturally falling into four groups: (1) The apparent obstruction which is really intestinal stasis, a reflex symptom occurring with slight abdominal distention, the pulse and temperature changes being such as are caused by the primary lesion, which is often renal, (2) the obvious hernia, (3) acute obstruction from an intra-abdominal lesion, and (4) post-operative obstruction. Obstructions within the abdomen, of course, are those which cause the greatest apprehension.

It has been shown beyond any doubt in many carefully conducted and brilliant researches, in connection with which the names of Sweet, Draper and Whipple are so well known, that toxemia is a constant and important element in intestinal obstruction, that the toxins are generated in the duodenum probably from the pancreatic and biliary secretions, and that they are of the nature of proteoses. The extensive work of Fenton B. Turk shows that there must also be a very toxic cytost formed from the intestinal mucosa. The further the obstruction is below the ampulla of Vater, the more diluted and harmless the toxins become.

One of the most grateful tasks which can fall to the lot of the surgeon, is to relieve a malady which is popularly recognized to be attended with great suffering. Early diagnosis and an accurate appreciation of the moment to interfere are, however, essential for this purpose. Cases of intestinal obstruction exemplify better than any other condition how dangerous it is to wait for the fully developed clinical picture before arriving at a decision. To pursue this course is to sacrifice the life of the patient to refinement in diagnosis, excellent though the motive be. There is no object in being able to proclaim at the autopsy that one had correctly diagnosed the situation and nature of the obstruction. The main object must be to recognize when surgical relief should be afforded, although one may not always know the precise position and character of the obstruction. This is no encouragement however to laxity in diagnosis. On the contrary, careful observation, thorough examination and a consideration of all signs are indispensable, but this must be done rapidly and one must decide rapidly if his reflections are to be of any use to the patient.

The importance of simple careful inspection of the abdomen for the recognition of visible peristalsis must be stressed. The contours of single intestinal loops may give rise to characteristic abdominal "patterns." In such cases one seeks for the cause of the ileus, tumor, foreign body, fecal impaction, adhesions or stricture, intussusception, invagination, hernia, compression from without, etc., and the site. All hernial orifices should be carefully examined and a thorough rectal examination made. The lower the site of the obstruction, the greater is the meteorism and tendency to fecal vomiting; the higher the site, the less the meteorism and the greater the intoxication. If the obstruction is in the duodenum or jejunum, the vomitus is not fecal but contains bile. Obstructions involving this region are violently toxic.

The indications for treatment in acute mechanical obstruction are: (1) to remove the highly toxic bowel contents from the body as quickly as possible; (2) to relieve the distention which is paralyzing the intestinal musculature, and (3) to restore the continuity of the intestinal lumen and re-establish the fecal current. I consider this to be the order of their importance.

Of the methods of treatment, the most obvious is the relief of the mechanical obstruction, whatever its nature. This is sufficient to meet all indications if the patient is seen early, before twenty-four hours or occasionally, even before forty-eight hours, while his general condition is still good. But in those distressingly frequent cases where symptoms have been present for a number of days, it is rarely enough. The intestinal muscles have become so paralyzed by distention and by the toxic intestinal contents that they are unable to pass the contents on to the anus rapidly and, therefore, continued absorption occurs. It may be several days after a mechanical obstruction has been relieved before the strangulated segments of the bowel, injured by prolonged pressure and

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anemia, can recover their tone, and thus a paralytic ileus frequently follows for this reason, the simple relief of the mechanical obstruction frequently fails to meet the prime indication of removing the toxic contents from the body. This is especially true in cases of long duration. A simple rapid jejunostomy, using a soft rubber catheter, size 18-22 French, should frequently be combined with the relief of the mechanical obstruction or performed alone, if the case is urgent. It probably should be done in all cases of acute mechanical obstruction of over 24 hours duration. The use of saline injections supportive measures, etc., need not be mentioned here.

During the past two years, we have treated in the Torbett Sanatorium eight cases of acute mechanical intestinal obstruction three of these have died. Of these three, two were from postoperative adhesions; one was seen too late for any operative interference, as he was in a moribund condition with a systolic blood-pressure of 90 mm.; and one was operated, the adhesions being carefully separated and a jejunostomy done. Very probably, if a simple jejunostomy had been done allowing the patient to recover from the absorption of the toxic material before any further work was attempted, she would have recovered. The third had an inflammatory obstruction from a bilateral pyosalpinx and died the third day after operation, although the cause was removed and the obstruction relieved.

Dr. Charles W. Flynn, at the meeting of the State Medical Association last year, stressed the importance of avoiding purgatives, and especially the withholding of morphin until the diagnosis is established. A member of our staff was taken with very violent pain in the lower abdomen, with a feeling of pressure on the bladder. There was nausea and vomiting and the suffering was intense. No flatus was passed and no bowel movement could be secured. There was evidently a kink or volvulus of the ileum. He was put in a neutral bath at a temperature of from 93 to 94° F. and given repeated neutral enemata at a temperature of from 98 to 99° F. Gastric lavage was also given and after one hour, the obstruction suddenly seemed to be released. There was immediate relief from pain. The patient stated that something seemed to come loose and rise up out of the pelvis. This case is mentioned to stress the importance of a neutral enema and a neutral bath, which relaxes the intestines and does not produce contraction as does heat, and also the probable advantage of not giving morphin immediately.

CONCLUSIONS.

1. Early diagnosis must be made and early operation done if the case does not quickly respond to the usual measures for relief, if the present high mortality rate is to be lowered.

2. The indications for treatment in acute mechanical obstruction in the order of their importance are: (1) To remove the highly toxic bowel contents from the body as quickly as possible; (2) to relieve the distention which is paralyzing the intestinal musculature; (3) to restore the continuity of the intestinal lumen and reestablish the fecal current.

3. Morphin should be withheld until the diagnosis is established, except in cases with general peritonitis.

4. Neutral enemata instead of the hot enemata, repeatedly given, may aid in relaxing the intestine much better in early cases.

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3. Mayo, C. H.: "The Cause and Relief of Acute Intestinal Obstruction," Jour. A. M. A., July 15, 1922.

MISCELLANEOUS

ENSWORTH MEDICAL COLLEGE ALUMNI.

The Alumni Association of the Ensworth Medical College was formed in Kansas City in October, with a membership of forty-three. Dr. Charles Geiger of St. Joseph was elected president of the association. The writer is very anxious to have enrolled all the graduates of Northwestern, Central and Ensworth Medical Colleges. The dues are $1.00 per year. We hope to have 100 in attendance at the meeting next fall. All graduates of the three colleges mentioned above are urged to send in their names to the secretary for enrollment at once.

CHARLES WOOD FASSETT, M. D., *Secretary*,
115 East Thirty-first street, Kansas City, Missouri.

ABOUT VACCINATION.

What is your opinion of smallpox vaccination? In the Philippines, in old days when Spain ruled, the natives died like flies of smallpox, cholera and many diseases.

Recently, under American scientific administration, the smallpox deaths were cut down to 14.30 per 100,000 of population, and since 1921, following an extensive vaccination campaign, which included vaccination of 2,132,653 persons, smallpox has been practically wiped out.

The deaths now are less than one in 100,000.

Theories on vaccination are interesting. But facts are more valuable.—*Fort Worth Record.*

AMERICAN BOARD OF OTOLARYNGOLOGY.

An examination was held by the American Board of Otolaryngology on October 19, 1925, at the Cook County Hospital, Chicago, with the following result: Passed, 120; failed, 23; total examined, 143.

The next examination will be held in Dallas, Texas, on April 19, 1926. Applications may be

secured from the secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

TEXAS STATE DENTAL SOCIETY MEETING.

The Forty-Sixth Annual Convention of the Texas State Dental Society will be held at Wichita Falls, Texas, April 20-23, 1926. The outstanding feature of this meeting will be six postgraduate clinical courses to be conducted by leading men of the profession.

F. F. Brown,
President, Wichita Falls.
J. G. Fife,
Secretary-Treasurer, Medical Arts Bldg., Dallas.

REDUCTION OF TAX ON PHYSICIANS UNDER HARRISON LAW.

On November 10, the Ways and Means Committee of the House of Representatives approved a reduction from $3 to $1 of the tax levied on physicians under the Harrison Narcotic Law. When a beneficent government decided to make the medical profession bear a part of the burden of the enforcement of the Harrison Narcotic Act through assessing physicians the sum of $1 in registering them under the act, the burden was assumed without complaint. When legislators who are charged with providing the government with funds sufficient to conduct its activities concluded that two additional dollars might be added as a war measure, the medical profession cheerfully accepted this additional burden. But when the war taxes were otherwise reduced and the tax of $3 was continued, perhaps as a simple method of increasing revenue, our profession revolted. It seemed sufficient for physicians to assume the task of keeping endless personal records without having to pay as well for the keeping of records in Washington. In the *Journal*, February 17, 1923, appeared an editorial comment protesting against this additional tax, particularly as it was shown that by the additional assessment the United States actually reaped a profit on the traffic in narcotic drugs. Again in 1924, the *Journal*, in its consideration of the recommendations submitted by Secretary Mellon, protested against the lack of any specific provision for a reduction in this indefensible tax. Regardless of these protests, the Commissioner of Internal Revenue attempted, on several occasions, to justify this tax. In the *Journal*, December 10, 1924, it was pointed out that the government had again profited by several hundred thousands of dollars from this tax. The House of Delegates, at the annual session of the American Medical Association held in Atlantic City last May, again urged the Board of Trustees to do all in its power to reduce this tax. Moreover, the issue of the *American Medical Association Bulletin* for June, 1925, presented a statement by Dr. W. C. Woodward, secretary of the bureau, giving the complete facts. Finally, the *American Medical Association Bulletin* for October, 1925, published the statement which the Board of Trustees, acting on instructions from the House of Delegates, had transmitted to the Secretary of the Treasury, the chairman of the Ways and Means Committee of the House of Representatives, and the chairman of the Finance Committee of the Senate. Here is clear evidence that a united medical profession, arguing a just cause, can secure eventually a satisfactory verdict.—*Jour. A. M. A.*, Nov. 14, 1925.

THIRD SHORT SCHOOL FOR SANITARIANS AND HEALTH WORKERS.

The Third Texas Short School for Sanitarians and Health Workers met at Waco, October 7-10, both dates inclusive. The general sections and registration headquarters were held at the Raleigh Hotel, while the laboratory section was conducted at the Science building at Baylor University. The registrants of the school totalled 117, 15 registering for the laboratory course. Certificates of attendance were issued to all entitled to the same. The program was very instructive and those in attendance expressed themselves as being highly pleased with the School, pledging their attendance at the next session. Among other measures adopted, the association ratified an amendment to its constitution, setting the annual membership fee at $1.00, and a life membership fee at not less than $25.00 and also prescribing the classification for membership. Affiliation with the American Public Health Association was endorsed, and Dr. Hubert Shull of Texarkana, and Mr. V. M. Ehlers of Austin, were appointed delegates to the convention of this association at St. Louis, October 19, 1925. A number of important resolutions were passed, endorsing certain sanitary projects and commending several organizations for work done along the lines of sanitation and for public health endeavors. The following officers were elected for the ensuing year: Dr. A. H. Flickwir, Houston, president; Clyde C. Hays, Waco, first vice-president; Chas. E. Bosshardt, San Antonio, second vice-president; J. Bryan Miller, Bryan, third vice-president; Dr. Hubert Shull, Texarkana, fourth vice-president, and E. G. Eggert, Austin, secretary-treasurer. The following were designated as the advisory council for the association: Dr. Holman Taylor, Fort Worth; Dr. W. B. Bizzell, College Station; Mr. R. E. Tarbett, El Paso; Mrs. Margaret Conger, Waco; Rt. Rev. C. S. Quin, Houston; Mr. V. M. Ehlers, Austin; Dr. H. O. Sappington, Austin; C. N. Avery, Austin; Dr. C. M. Rosser, Dallas; Dr. I. M. Lewis, Austin; Richard P. Hall, Houston; Dr. J. D. Blevins, Beaumont, and Mr. John H. Burns, Waxahachie.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Arsphenamine-D. R. L. 0.3 Gm. Ampules.—Each ampule contains arsphenamine-D. R. L. (New and Nonofficial Remedies, 1925, p. 47) 0.3 Gm. The Abbott Laboratories, Chicago.

Arsphenamine-D. R. L. 0.5 Gm. Ampules.—Each ampule contains arsphenamine-D. R. L. (New and Nonofficial Remedies, 1925, p. 47) 0.5 Gm. The Abbott Laboratories, Chicago.

Neoarsphenamine-D. R. L. 0.15 Gm. Ampules.—Each ampule contains neoarsphenamine-D. R. L. (New and Nonofficial Remedies, 1925, p. 49) 0.15 Gm. The Abbott Laboratories, Chicago.

Scarlet Fever Streptococcus Antitoxin-Lederle (Refined and Concentrated). A scarlet fever Streptococcus antitoxin (*Jour. A. M. A.*, May 2, 1925, p. 1338) prepared by immunizing horses by the subcutaneous injection of the toxic filtrate obtained by growing the scarlet fever streptococcus in broth; also by injecting cultures of the scarlet fever streptococcus. It is marketed in syringes containing 1 cc. and in syringes containing 10 cc. Lederle Antitoxin Laboratories, New York.

Saubermann Radium Emanation Activator, 100,000 Mache Units.—Each apparatus (New and Nonofficial Remedies, 1925, p. 315) imparts about 36 millicuries (100,000 Mache units) to about 500 cc. of water daily. Radium Limited, U. S. A., New York. —*Jour. A. M. A.*, Nov. 7, 1925.

Neutral Acriflavine Jelly 1:1,000-Abbott.—Neutral Acriflavine-Abbott (New and Nonofficial Remedies,

1925, p. 134), 0.1 part, dissolved in karaya gum jelly, containing sufficient sodium hydroxide so that the finished product has a pH of from 8.3, to 8.5, to make 100 parts. Abbott Laboratories, Chicago.—*Jour. A. M. A.*, Nov. 28, 1925.

Proteins Dried-Mulford. — Powders representing the proteins of substances believed to be the cause of specific sensitization. For a discussion of the actions and uses, see Allergic Protein Preparations (New and Nonofficial Remedies, 1925, p. 278). Proteins dried-Mulford are intended for diagnosis only. One milligram of the dried protein is rubbed into an abrasion of the skin to which has been applied a drop of physiological solution of sodium chloride or of tenth-normal sodium hydroxide solution. The appearance of an urticarial wheal indicates sensitiveness to the particular protein used. They are marketed in packages of one capillary tube containing a needle and sufficient protein for one test; in packages of six capillary tubes, and in vials containing 50 mg. of the protein. The following proteins dried-Mulford have been accepted: Almond protein dried-Mulford; apple protein dried-Mulford; asparagus protein dried-Mulford; banana protein dried-Mulford; barley protein dried-Mulford; bean (lima) protein dried-Mulford; bean (navy) protein dried-Mulford; bean (string) protein dried-Mulford; beef protein dried-Mulford; beet protein dried-Mulford; buckwheat protein dried-Mulford; cabbage protein dried-Mulford; cantaloupe protein dried-Mulford; carrot protein dried-Mulford; cat hair protein dried-Mulford; cattle dander protein dried-Mulford; cauliflower protein dried-Mulford; celery protein dried-Mulford; chicken protein dried-Mulford; chicken feather protein dried-Mulford; clam protein dried-Mulford; codfish protein dried-Mulford; coffee protein dried-Mulford; coli (Communis) bacillus protein dried-Mulford; corn protein dried-Mulford; cucumber protein dried-Mulford; diphtheroid (polyvalent) bacillus protein dried-Mulford; dog hair protein dried-Mulford; dysentery bacillus (polyvalent) protein dried-Mulford; eggplant protein dried-Mulford; egg white protein dried-Mulford; egg yolk protein dried-Mulford; flaxseed protein dried-Mulford; Friedlander bacillus protein dried-Mulford; goose feather protein dried-Mulford; gonococcus (polyvalent) protein dried-Mulford; guinea-pig hair protein dried-Mulford; horse dander protein dried-Mulford; horse serum protein dried-Mulford; influenza bacillus protein dried-Mulford; kapol protein dried-Mulford; lamb protein dried-Mulford; lettuce protein dried-Mulford; lobster protein dried-Mulford; mackerel protein dried-Mulford; kapok protein dried-Mulford; lamb protein dried-Mulford; micrococcus catarrhalis bacillus protein dried-Mulford; milk protein dried-Mulford; mushroom protein dried-Mulford; oat protein dried-Mulford; onion protein dried-Mulford; orange protein dried-Mulford; orris root protein dried-Mulford; oyster protein dried-Mulford; paratyphosus bacillus A protein dried-Mulford; paratyphosus bacillus B protein dried-Mulford; pertussis bacillus (polyvalent) protein dried-Mulford; pea protein dried-Mulford; peanut protein dried-Mulford; pepper (black) protein dried-Mulford; pneumococcus bacillus (polyvalent) protein dried-Mulford; pork protein dried-Mulford; potato protein dried-Mulford; rabbit hair protein dried-Mulford; rice protein dried-Mulford; rice powder (polish) protein dried-Mulford; rye protein dried-Mulford; salmon protein dried-Mulford; spinach protein dried-Mulford; squash protein dried-Mulford; strawberry protein dried-Mulford; sheep's wool protein dried-Mulford; staphylococcus bacillus (albus and aureus) protein dried-Mulford; streptococcus bacillus (polyvalent) protein dried-Mulford; sweet potato protein dried-Mulford; tea protein dried-Mulford; tomato protein dried-Mulford; tobacco protein dried-Mulford; tubercle bacillus (human) protein dried-Mulford; tubercle bacillus (bovine) protein dried-Mulford; typhosus bacillus protein dried-Mulford; veal protein dried-Mulford; walnut protein dried-Mulford; wheat protein dried-Mulford. H. K. Mulford & Co., Philadelphia.

PROPAGANDA FOR REFORM.

Lactic Acid Milk.—New and Nonofficial Remedies brings out that there is considerable evidence in favor of the therapeutic value of soured milk—particularly of sour milk containing an abundance of living *B. acidophilus*. Whereas the administration of *B. acidophilus* has for its object the implantation of living *B. acidophilus*, there are reports which indicate that the administration of milk sugar may produce the same results through promoting the growth of aciduric bacteria normally present in the intestinal flora.—*Jour. A. M. A.*, Nov. 14, 1925.

Horse Dung Allergen-Squibb, House Dust Allergen-Squibb, Le Page's Glue Allergen-Squibb and Street Dust Allergen-Squibb Not Acceptable For N. N. R.—These are proposed for use in determining specific sensitiveness. The Council on Pharmacy and Chemistry reports that, since the composition of horse dung, house dust, glue and street dust is indefinite, it is irrational to test the hypersensitivity of a patient by means of a stock preparation; therefore, the Council finds these preparations of E. R. Squibb & Sons unacceptable for New and Nonofficial Remedies.—*Jour. A. M. A.*, Nov. 7, 1925.

Vitanol Not Acceptable For N. N. R.—The Council on Pharmacy and Chemistry reports that Vitanol (Daub Chemical Co., Brooklyn), "The all year round tonic," is stated to have the following composition: "Egg yolk, 8%; Lecithin, 1.5%; Hemoglobin, 1.5%; Ferri Albuminate, 1.5%; Cod Liver Oil, 25%; Glycerin, 9.5%. Vehicle used contains sugar, terpenless oil of lemon, and whisky, giving an alcoholic equivalent of 20%." Vitanol, being a complex and irrational mixture of uncontrolled composition marketed with unwarranted therapeutic claims and in a way to invite its indiscriminate and ill-advised use by the public, was found unacceptable for New and Nonofficial Remedies by the Council.—*Jour. A. M. A.*, Nov. 7, 1925.

More Misbranded Nostrums.—The following products have been the subject of prosecution by the authorities charged with the enforcement of the Federal Food and Drugs Act: Grandma's Compound Sarsaparilla (Park Laboratory Co., San Antonio, Texas), consisting essentially of potassium iodid, alcohol, with plant extractives including a laxative drug, sugar, water and flavoring. Hooper's Anodyne (O. P. Hooper Chemical Co., Chester, Pa.), consisting essentially of morphin hydrochlorid, glycerol, sugar, salicylic acid and water, flavored. Ark-A-Lu (Vawter Drug Stores, Monroe, La.), consisting essentially of Epsom salt, iron chlorid, nitric and hydrochloric acids and water, with flavoring. Sanita (Newer Novelties Co., Los Angeles, Cal.), consisting essentially of capsules of cacao butter and tannin, with a trace of boric acid. D-O-D (R. Burbach, West Allis, Wis.), consisting approximately of 93 per cent of baking soda, 6 per cent of potassium permanganate and a small quantity of Epsom salt. Rose's Whooping Cough Remedy (Aschenback & Miller, Inc., Philadelphia), containing syrup, potassium nitrate, arsenic and cyanid. A. D. S. Special Kidney and Bladder Pills (American Druggists' Syndicate, New York), consisting of hexamethylenamin and extracts of plant drugs, including small quantities of resins and volatile oils mixed with magnesium carbonate.—*Jour. A. M. A.*, Nov. 14, 1925.

Radium Ore Revigator.—Capitalizing the discov-

ery of radium and radioactivity, water jars containing as a part of the wall of the jar or as an accessory low grade radioactive ore are being sold under the general claim that they render water that is put into them, radioactive and that this radioactive water will "make you well if you are sick and keep you from getting sick if you are well." One of the most widely advertised of these devices is known as the Radium Ore Revigator, put out by a California Company. From the advertising claims the impression is gained that ill health is caused by the lack of radioactivity in our drinking water, that the curative properties of certain mineral waters have been shown to be due to their natural radioactivity and that many ills are cured by the use of water from the "Revigator" jars. Even if the water from the jars has the radioactivity claimed, this is so small that it has no therapeutic significance.—*Jour. A. M. A.*, Nov. 21, 1925.

Side-Lights on Intravenous Medication.—Intravenous injection involves difficulties of technic, with the possibility of local injuries to the peripheral blood vessels at the seat of operation. It presents dangers of bacterial contamination; the vehicle as well as the drug is immediately foreign to the blood, and other objections have presented themselves. The Council on Pharmacy and Chemistry has taken a decidedly conservative attitude toward the recognition of the scores of products intended for direct intravenous use. The wisdom of this stand has been attested anew by a recent report of Hanzlik and his collaborators who report that a large variety of substances cause definite and important changes in arterial blood of test animals, accompanied as a rule by disturbances in physiologic functions.—*Jour. A. M. A.*, Nov. 21, 1925, p. 1645.

Herradora Products and Intravenous Therapy.—In 1923, the Council on Pharmacy and Chemistry found the intravenous preparations of the Scientific Chemical Co. (Marcus Aurelio Herradora, president), not acceptable for New and Nonofficial Remedies because of unwarranted and unsubstantiated statements in favor of intravenous and intramuscular administration of drugs and because of the complex and indefinite mixtures as represented by these specialties. From an examination of advertising recently received there appears to be every reason to reiterate the Council's conclusion that "the propaganda contained in the advertising matter issued by the Scientific Chemical Company is detrimental to the rational practice of medicine and to the public health."—*Jour. A.* M. A., Nov. 21, 1925.

Diabesan.—The Council on Pharmacy and Chemistry reports that Diabesan (Solosan Co., Morristown, N. J., A. H. Werner, president), is claimed to contain as its chief therapeutic agent " * * * the trypsin of dead yeast cells * * * " and is said to be "indicated in all cases of diabetes and glycosuria." The Council reports that the evidence in support of the claims made for Diabesan is contained in a paper written by A. H. Werner, the president of the Solosan Co. and that the paper contains a number of fallacies that vitiate the rather intangible and poorly written arguments; further, the available information seems to show that A. H. Werner is not a properly qualified medical authority. The Council concludes that the claims for Diabesan are not in harmony with accepted facts, nor supported by acceptable evidence; nor does there appear to be any evidence that trypsin —or a preparation such as Diabesan, said to contain it—has any value in the treatment of diabetes.—*Jour. A. M. A.*, Nov. 28, 1925.

Sanocrysin, the Mollgaard Tuberculosis Remedy.—The first copies of a book by Mollgaard and his coworkers, describing experiments with sodium auric thiosulphate, for which the name "Sanocrysin" has been registered, have been received in the United States. The outstanding fact in connection with Sanocrysin is that it is only the name that is new. The salt is an old one and is now used in the arts. Mollgaard claims to have improved the process of preparation to remove toxic substances. But one is impressed with the fact that Mollgaard's preparation is dangerous unless its use is carefully supervised, especially in tuberculous animals or persons. Mollgaard claims to have rendered the dangers less serious by the use of serum from calves or horses previously infected with dead tubercle bacilli. While Mollgaard does not claim that the use of the serum takes any part in the cure which Sanocrysin is said to bring about, one cannot help feeling, when reading the results of his experiments, that it is the conjunction of the two substances which effect whatever curative influence the treatment may have. The evidence for the value of this treatment in tuberculosis, however, is not convincing. In the United States, the new treatment cannot be sold until it is licensed by the United States Public Health Service. This Service is carrying out experiments to determine if a license may be granted. Meanwhile the Council on Pharmacy and Chemistry will investigate and issue a preliminary report. In view of the dangers involved in the use of Sanocrysin, the best advice to those suffering from tuberculosis is to continue the well known and well tried methods of sanatorium treatment.—*Jour. A. M. A.*, Jan. 24, 1925.

NEWS

Bricks Without Straw.—The sorriest material the Lord makes is used in turning out fake doctors and shyster lawyers.—*McKinney Daily Courier-Gazette.*

Chiropractor Convicted at Palo Pinto.—T. J. Watkins was convicted at Palo Pinto, October 23, according to the *Mineral Wells Index*, and sentenced to one day in jail with a $50 fine.

Mt. Pleasant Chiropractor Convicted.—Kenneth Taylor, Chiropractor, was found guilty of violation of the Medical Practice Act by a jury at Mt. Pleasant, and fined $50 and one minute in jail.

Amarillo Chiropractor Arrested.—A. D. Fentsy, J. F. Bromert and C. H. Black, Amarillo chiropractors were arrested, October 27, on charges of practicing medicine without a license, according to the *Amarillo News*. All were released under $500 bonds.

Charges Dropped Against Austin Chiropractor.—Charges against O. D. Kinney, Austin chiropractor, were dropped upon his filing a motion in which he stated that he had discontinued the practice of chiropractic, according to the *Dallas Dispatch.*

Collin County Chiropractor Fined.—The *Wichita Falls Record News* recently stated in its columns that W. A. Green had been found guilty by a jury, of practicing medicine without a license, and the sentence imposed was a fine of $300 and five days in jail.

Dallas Chiropractor Incarcerated in County Jail.—Clyde M. Keeler, Dallas chiropractor, was incarcerated in the county jail recently for failing to make bond, being later released after having made bond to the amount of $500, according to the *Dallas Journal.*

Charges Filed Against Ten Dallas Chiropractors.—According to the *Bryan Daily Eagle*, charges of violating the Medical Practice Act were filed against the following Dallas chiropractors: T. H. Lindsley, S. T. McMurrain, A. T. Harris, Clyde M. Keeler, Frank L. Cullen, Mrs. W. I. Easters, C. W. Billings, W. E. Walkers, C. O. Michall and K. E. Guy.

Paris Chiropractor Convicted.—J. F. Pruett, a chiropractor at Paris, was found guilty by a jury and fined $50 and one-tenth of a second in jail, according to the *Fort Worth Record.* This verdict was rendered despite the fact that the chiropractor was represented by a brilliant array of legal talent, one of his counsel coming all the way from Wisconsin to assist in the trial.

Meeting of the Medical and Surgical Association of the Southwest.—At the close of its eleventh annual meeting November 7, the Medical and Surgical Association of the Southwest elected the following officers for the ensuing year: Dr. Willard Smith of Phoenix, Arizona, president; Dr. W. W. Waite of El Paso, first vice-president; Dr. L. S. Peters of Albuquerque, second vice-president; Dr. W. Warner Watkins of Phoenix, secretary and treasurer.

City-County Hospital at Fort Worth will be enlarged by the addition of an annex providing 100 additional hospital beds at a cost of $34,469. The funds for financing this project were provided by a recent county appropriation and city bond issue, the city and county contributing equally to the project. There has long been need for enlarging this hospital which has for many years been entirely inadequate to meet the needs of the rapidly growing city and county which it serves.

Dallas County Dental Society Indorses School Health Work.—According to the *Dallas News*, the following statement was made by Dr. W. B. Delafield, president of the Dallas County Dental Society: "The society has passed a resolution indorsing the health work being done in the city schools and authorized the appointment of a committee of dentists to confer with the Board of Education in regard to plans for increasing the effectiveness of the dental section of the school health program. There seems to be a general impression that the Dental Society is not in sympathy with the school health program and we feel that we have been misunderstood, for that is what we have been working toward for several years."

Tick Fever Vaccine Believed Effective.—After a number of years of study the United States Public Health Service believes that a vaccine has been produced which will afford protection against what has been termed Rocky Mountain Spotted fever. This vaccine, which is still undergoing tests, was produced at the cost of three lives. Assistant Surgeon, McClintic, and laboratory assistants, Wm. W. Gattinger and George Cowan, contracted the disease while making the laboratory studies and died. Surgeon General Cummings paid high tribute to the courage and self-sacrifice of these martyrs to science. Should the vaccine prove to be as successful as is anticipated, a big step in advance against this very fatal disease has been made.

The Eagle Pass Medical Round Table met at the home of Dr. Charles Tarver, November 5, with the following members present: Drs. Lorenzo Cantu, M. A. Ramsdell, Lea Hume, B. Montemayor, E. F. Gates and Charles Tarver.

According to the *Eagle Pass Guide*, during the course of the delectable Mexican supper which was served, the participants "became so lively that it was manifest that it is a mistaken idea that one must have champagne to bring the 'feast of reason and flow of soul'" (perhaps tequila can produce the same effect).

Among other things discussed at the meeting was the question of an ordinance for the protection of school children against communicable diseases, and also the question of reporting the location where the patient died, in recording death certificates.

Ground Broken for Fort Worth Medical Arts Building.—Work on the Medical Arts building which is to be erected at West Tenth, Cherry and Burnett streets, was formally begun at 10 a. m. Saturday, December 5, at a ground-breaking ceremony at which Dr. Charles F. Clayton, retiring president of the Tarrant County Medical Society, turned up the first shovel of dirt. This building which is being erected by the Jesse H. Jones interests of Houston, will be eighteen stories high. The building will be the most modern building of its kind and will cost considerably more than a million dollars. The Tarrant County Medical Society will, under the terms of the agreement entered into between them and the owner of the building, reserve the right to pass upon all tenants entering the building, in order that there may be no unethical professional or business interests in the building. Others present at the ground-breaking ceremony were Dr. T. L. Goodman, incoming president of the Tarrant County Medical Society, Dr. J. T. Edwards, president of the Fort Worth Dental Society, and several representatives from surgical supply houses who will have a home in the new building.

Medical Arts Emergency Hospital was formally opened November 16, at a meeting at which Mayor Lewis Blaylock and Dr. C. M. Rosser, president of the State Medical Association, were the principal speakers. This hospital is located on the ground floor on the west side of the Dallas Medical Arts building. The hospital consists of a waiting room, doctor's office, large operating room opening into the ambulance drive-way, and a hospital room with several beds for patients. The superintendent of the new hospital is Dr. Charles C. Holder, who was for several years on the staff of the City Emergency Hospital. The project has been endorsed by the Dallas County Medical Society, all of whose members will be available for treatment of patients brought to the hospital, who will be allowed to choose their own physicians. In addition, there will be a doctor and other staff members on duty at the hospital day and night. The advisory board of the hospital, appointed by the president of Dallas County Medical Society, Dr. W. D. Jones, is composed of the following doctors: Curtice Rosser, C. R. Hannah, J. J. Terrill, T. J. Crowe and W. D. Jones. This hospital is said to be one of four of its kind in the South, and the only one in the State.

SOCIETY NEWS

Bexar County Medical Society met October 22, with 50 members and 3 visitors in attendance.

Dr. W. S. Hanson reported the case of a Mexican, aged 38, who had been found by the police in an unconscious condition. He was lying on his back and beside him was a pool of blackish vomitus which looked like green corn. No one knew how long he had been in that condition when found. He was semi-conscious, with quiet respiration, opening his eyes when shaken or spoken to but making no response. His eyes oscillated irregularly, the pupils were unequal, the right being more dilated than the left, and did not react alike. His skin was cold and clammy and he appeared to be in severe shock. His heart sounds were heard indistinctly, his blood-pressure was 135/80, pulse 38, and respiration 14. His lungs were negative except for a few moist rales at the bases. His abdomen was negative. His knee reflexes were absent. The left leg dropped as though paralyzed, when allowed to fall. The urine was negative, the blood count fairly normal, and the blood Wassermann negative. The spinal fluid was under great pressure and was bloody. Under the influence of stimulants his blood-pressure in-

creased to 50 and the respiration to 18. Next day the patient appeared to be paralyzed in both legs. Another spinal puncture revealed cloudy fluid under pressure. The third day the patient was able to answer questions in a feeble and inarticulate voice. On the fourth day he began to have fever up to 101° F., his temperature returning to normal each morning. On the sixth day another spinal puncture revealed bloody spinal fluid under diminished pressure. On the eighth day his temperature went up to 103° F., his pulse became rapid for the first time, going up to 100, and his respiration to 22. The patient became comatose again and died on the twelfth day.

Dr. Herbert Hill, who performed the autopsy, discussed the case, making a report of the findings and showing a section of the brain. There was a rupture of a small aneurysm of the right anterior cerebral artery in the frontal lobe, and a large hemorrhage into the left ventricle.

Dr. O. H. Judkins read a paper on Zinc Ionization in the Treatment of Suppurating Cavities. The history of this method and the chemistry involved, were explained by the essayist. He stated that in the last three or four months he had treated 35 cases with no failures, but realized that these results could not always be obtained. These cases had suffered from a running ear for from 3 to 15 years. Although he had so far only used this method in suppurating ear conditions, he saw no reason why it should not be applicable to other suppurations. If applied in a careful way, he believed that success would follow in a lage per cent of cases, but that the method is not applicable if the mastoid is involved. He had found that four or five treatments would relieve the most persistent running ear.

This report was discussed by Drs. Lee Rice, J. S. Steele, E. M. Sykes, O. J. Potthast, S. Burg, Homer T. Wilson, L. F. Robicheaux, Mary C. Harper and B. F. Stout.

Dr. Judkins in closing the discussion stated that irrigation of the ears merely washed off the surface of the infected area, while zinc ionization allowed the zinc chlorid to penetrate the mucous membrane, which was the secret of the apparent success of the method. He thought the method should be useful in urethritis, fistula, blind suppurating sinuses and in dentistry. He did not think the method applicable to empyema of the chest because of the broad surface of the area involved. He stated that he had followed the technique devised by Dr. Harold Warwick of Fort Worth. In the case of an ear that has been discharging for a week, one treatment will usually clear up the condition.

Dr. J. A. Watts read a paper on "Some Interesting Pelvic Fractures." His paper was illustrated with a number of excellent lantern slides. This paper was discussed by Drs. O. J. Potthast, J. W. Nixon, J. Manning Venable, J. W. Goode, and W. M. Barron.

In closing, Dr. Watts said he had been impressed with the relative infrequency of rectal and vesical lacerations in fractures of the pelvis. He had seen one case in which the bladder had been torn by extreme dislocation of the symphysis pubis. In the cases mentioned by Dr. Barron in which the head of the femur had been driven into the floor of the acetabulum, he could not conceive of any operative measure which would be of any avail. If bones are given half a chance by being properly extended they will spring back into place, but the plaster spica must be correctly applied by using the Halle table, and this position must be maintained for a sufficient length of time.

Bexar County Medical Society met October 29, with 100 members in attendance.

The following amendment to the Constitution and By-Laws of the Society was passed, paragraph by paragraph, after considerable discussion by many members of the society:

1. The roster of the society may appear in secular newspapers as often as the committee deem advisable.

2. A card may be placed in the secular papers for the purpose of announcing a change of location, or a change in a firm or partnership, or to give notice of a contemplated absence of a week or more, or notice of return after an absence of a week or more, the same in each instance to run for a period not exceeding ten days.

3. Any member may write articles of an educational nature provided that the article shall be impersonal, shall not be signed by the author and shall be approved by the Board of Censors, submitted by them to the paper, and signed as under the authority of the Bexar County Medical Society.

A committee composed of Drs. Geo. Paschal, C. W. Taylor and C. F. Lehman was appointed by the President to see if arrangements could be made with the telephone company to have the various physicians' specialties placed beside the name of each in the classified list in the telephone book.

A committee consisting of Drs. J. H. Burleson, E. V. DePew, and Phil Hill was appointed to take under advisement the matter of having a San Antonio Day during the meeting of the American Medical Association in Dallas in April.

Resolutions of sympathy on the death of Mrs. Chas. S. Venable were adopted.

Bexar County Medical Society met November 5, with a good attendance.

Dr. J. W. Ellis read a paper on "Diphtheria—Symptomatology, Diagnosis and Treatment."

Dr. S. R. Kaliski said that in recent years prophylaxis had been a most important element in the treatment of diphtheria, and that the administration of toxin-antitoxin mixture would eventually cut down the incidence of diphtheria to practically nothing. He disagreed with the essayist as to the dosage of antitoxin, believing in single massive doses, sufficiently large to neutralize the toxin. The subcutaneous route of administration has been practically abandoned for the intramuscular and intravenous routes.

Dr. Lucius Hill stressed the importance of early recognition of diphtheria by careful inspection and by taking cultures in all suspicious throats. In all cases of doubt, antitoxin should be given. The intraperitoneal route is probably the best and quickest in small infants.

Dr. Scott Bronson thought that a nasal swab as well as a throat swab should be taken in any case where diphtheria might be suspected. There are other infections of the respiratory passages that produce membranes simulating diphtheria.

The paper was further discussed by Drs. P. I. Nixon and Flagg.

Dr. Herbert Hill stated that he had recently seen a girl twelve years of age, who had been sick eight days before he saw her. The pulse rate was between 120 and 130, temperature was over 100° F., and there was an exfoliation of the skin of the face and neck and bleeding from the nose. A pure culture of diphtheria was grown from the nasal smear and 40,000 units of antitoxin was given at once. The next day the pulse dropped to 40 and there were disturbances of the bowels and total suppression of urine. The child died on the tenth day of her illness, from profound toxemia.

Dr. Ellis, in closing, stated that while it was true that immunization against diphtheria had greatly lessened the incidence of the disease, it was still one of the most severe diseases of childhood

and the mortality even with antitoxin was about three per cent.

Dr. Lee Rice then gave brief synopses of papers that he had recently heard at medical meetings at Kansas City and St. Paul.

Dr. James T. Cooper, one of the medical directors in the clinical research of the New York Birth Control Board, then spoke on the subject of Birth Control. He quoted statistics in an endeavor to show that at the present birth rate, the world would double in population every 65 years, while the United States would double its population every 35 years. This marked increase was due to the lowered death rate, particularly for this country. The terrible scourges, such as bubonic plague, smallpox, cholera, yellow-fever, etc., were largely responsible for the nearly stationary population that has existed for so many centuries in Europe and Asia. He divided the population of the United States into three classes as follows: (1) Intelligencia, such as the professional and average business man, averaging 2.7 children per family; (2) artisan, a class made up of the average working man, that averaged six children per family, and (3) the moron or mental defectives with bad heredity, whose families were usually three times as numerous as those of the first class. It is common knowledge with those who have studied this question that the greater number of delinquents come from this third class. Statesmen are greatly concerned because insane asylums and charity institutions are filled to overflowing. There are ten on the outside for every one on the inside of such places. Some authorities contend that pregnancy is contraindicated in patients who have formerly had eclampsia. Economic conditions demand that contraceptive advice be given. It is estimated that there are at least 2,000,000 abortions in the United States each year. These are uncalled for and are simply a protest against pregancy. Proper knowledge of safe and efficient methods of proper prevention of childbirth would lessen materially this enormous number of abortions, which are a great cause of loss of life and future ill health. It was found that, with the method advised, favorable results were obtained in 98 per cent of clinical cases where such contraceptive methods had been employed for one year's time. There are now 36,000 members of the American Birth Control League.

Drs. J. L. Cochran, Elizabeth Donaldson and J. L. Mitchell were elected to membership.

Cameron County Medical Society met October 29, at the Valley Baptist Hospital.

Dr. I. L. McGlasson of San Antonio read a paper on "The Future of the Cancer Problem," and showed a number of lantern slides.

The following committee was appointed to stimulate attendance at the Southern Medical Association meeting in Dallas: Drs. N. A. Davidson of Harlengen, Malone Duggan of La Feria, and J. M. Johnson of Rio Hondo.

Cherokee County Medical Society met at Rusk, November 23, with the following members in attendance: Drs. J. M. Travis, J. N. Bone, W. H. Sorey and R. T. Travis, Jacksonville; W. A. McDonald, Alto; J. B. Ramsey, Forest; G. W. Barrett, Gallatin; T. H. Priest, E. M. Moseley and J. F. Johnson of Rusk. The following visitors were present: Drs. A. E. Sweatland and Dunn of Lufkin, and Lindley Smith of Rusk Hospital.

Scientific papers were read by Drs. A. T. Travis, W. T. Sweatland and W. H. Sorey. The society was entertained by a reading by Mrs. Mary McDaniel, a piano solo by Miss Russell, and a vocal solo by Miss Braley.

As this was the regular night for election of officers the following officers were chosen for the ensuing year: Dr. F. A. Fuller, president; Dr. R. C. Priest, vice-president; Dr. T. H. Cobble, secretary and treasurer. Dr. Cobble was also chosen as representative to the State Medical Association, with Drs. Boone, Ramsey and Moseley as alternates.

A banquet was given by the local members in honor of the society at the Singletary Cafe.

Dallas County Medical Society met October 22, with 34 members present.

Dr. T. M. Jarmon reported the case of a woman with a tumor in the left side of the abdomen. Both of her tubes had been removed, but nevertheless pregnancy was suspected. On operation, a spongy uterine fibroid was found, which was removed.

Dr. C. C. Nash reported the case of a boy whose skull had been fractured in a motorcycle accident. The peculiar feature of this case was that although he was able to tell about the accident at the time of the examination, he later lapsed into unconsciousness and on regaining consciousness was unable to remember anything about the accident.

Dr. Wayne T. Robinson reported four cases of premature rupture of the membranes, without any serious consequences. Two of the patients went two weeks before labor was induced, and all of them were delivered of live children.

Dr. Rice Jackson reported the case of a woman who had miscarried at about two months, who had refused to submit to a curettage. She got up about the tenth day but soon began to have pains again and passed another fetus about four or five months old. On attempting to introduce a curette the uterus was found to be bifurcated.

Dr. Guy F. Witt read a paper on "Subconscious Psychic Defense Reactions," which was discussed by Drs. F. H. Newton, Geo. H. Carlisle and D. W. Carter.

Dr. A. B. Small read a paper on "A Brief Review of the Literature on Carotid Body Tumors," which was discussed by Dr. C. C. Nash.

Drs. G. G. Harrison, D. C. McBride and R. E. DeWitt were elected to membership on application, and Dr. N. W. Andrews was elected to membership on transfer from Van Zandt County Medical Society.

Dallas County Medical Society met in special session, October 23, with 68 members present.

The following committee was appointed for the purpose of collecting the subscriptions to the Publicity Campaign Fund: Drs. M. S. Seely, Ben L. Schoolfield, A. J. Schwenkenburg, Van Cookerly, J. L. Touchstone, J. H. Dorman, C. C. Nash, Speight Jenkins, C. H. Warren, Frank Harrison, E. C. Schulze, Genevieve Shea, B. R. Buford, B. H. Griffin, A. A. Newsom, R. E. Wright and R. H. Milwee.

Drs. Cossette Faust Newton and Guy A. Tittle were elected to membership on application.

The president, Dr. W. D. Jones, then introduced Dr. James T. Cooper, of the American Birth Control League, who addressed the society on the subject of Birth Control.

Delta County Medical Society met November 2, at Cooper. After a dinner at the Cooper Hotel, the meeting adjourned to the office of Doctors D. O. Lowry and C. C. Taylor. The following members were in attendance: Drs. D. O. Lowry, E. E. Woodruff, T. M. Darwin, W. O. Hearne, O. Y. Janes, W. H. Forrester, D. B. Westerman and C. C. Taylor.

Dr. E. E. Woodruff reported the case of a woman of about 50 years of age, who was unconscious for more than a week. She suddenly aroused and wanted to know where she had been. This case was discussed by all present.

A committee consisting of Drs. T. M. Darwin, E. E. Woodruff and D. B. Westerman was appointed

to urge attendance upon the Southern Medical Association meeting at Dallas.

DeWitt and Lavaca Counties Medical Societies met in joint session at Cuero, October 28, with the following members and visitors present: Drs. R. G. McCorkle and J. Manning Venable of San Antonio; Dr. O. L. Norsworthy of Houston; Drs. V. J. Hopkins and O. S. McMullen of Victoria County; Dr. E. H. Marek and W. Shropshire of Lavaca County; Drs. H. C. Eckhardt, R. M. Milner, Geo. Cross, G. W. Allen, W. W. Sale, G. N. Duckworth, J. G. Burns, J. W. Hale, J. C. Dobbs, S. P. Boothe, J. R. Frobese, H. H. Brown, Jr., and J. B. Nowierski of DeWitt County.

After an enjoyable dinner at the Central Hotel, the meeting adjourned to the office of Drs. Dobbs and Burns where the following scientific program was rendered: "Cancer of the Lip, With Special Reference to the Use of Radium," Dr. O. L. Norsworthy of Houston; "A Step in Prevention of Tuberculosis—the County Sanatorium," Drs. C. J. Koerth and R. G. McCorkle of San Antonio; "Chronic Obstruction of the Colon," Dr. W. H. Cade of San Antonio.

A communication from the State Secretary in regard to the roster publicity campaign, was read and the societies went on record as indorsing this movement. By a motion of the societies it was agreed that there would be no meeting held in November, but that the two societies would join in a meeting with Victoria County on the 18th of November. The next joint meeting of DeWitt and Lavaca counties will be held at Yoakum in January.

El Paso County Medical Society met October 19, with 24 members and 5 visitors present.

A letter from Dr. Holman Taylor was read, in which the society was urged to attend the Southern Medical Association meeting in Dallas. A committee consisting of Drs. Davis, Anderson and Wilson was appointed to arouse interest in this meeting.

Dr. W. R. Jamieson read a paper on Medical and Dental Officers Reserve Corps." The essayist brought out very forcefully the importance of the organization and why eligible physicians should be members. He reported that a large number of physicians in El Paso are members of the Reserve Corps. This paper was discussed by Drs. Turner, McCamant, Strong and Laws.

Colonel M. A. W. Shockley, commanding officer of the William Beaumont Hospital, discussed the Duties of Reserve Officers on Active Duty, and also the varied opportunities afforded officers of the Regular Army Medical Corps.

El Paso County Medical Society met November 2, with 30 members and 4 visitors present.

Dr. W. E. Vandevere presented four patients who had undergone mastoidectomies, each of whom showed very good cosmetic results.

Dr. R. B. Homan read a paper on "Tuberculosis of Mediastinal Lymph Nodes." This paper was discussed by Drs. Egbert, Leigh, Garrett, Laws and Casellas.

Dr. Orville Egbert read a paper on "Pneumonoconiosis." He discussed very thoroughly the differential diagnosis in this affection and showed several radiograms in cases of this disease. This paper was discussed by Drs. Homan, Laws and Casellas.

Announcement was made of the meeting of the Southwestern Medical and Surgical Association at El Paso, and members of the society were urged to attend the same.

El Paso County Medical Society met November 9, with 35 members and 6 visitors present.

Dr. J. A. Wright of Los Angeles, gave an interesting discussion on "Endocrinology," which was illustrated by a series of very fine lantern slides. This paper was discussed by Drs. Werley, Crouse, Egbert, Leigh, Garrett and Hardy.

Dr. C. M. Hendricks read a paper on "Medical Propaganda," in which many good points were brought out, showing why the public should be informed on medical and health subjects. This paper was discussed by Drs. Garrett, Egbert, R. B. Homan, Casellas, Strong, Craige, Gallagher, J. W. Brown and Crouse.

Dr. E. D. Strong read a paper on "Medical Education," in which was outlined the progress that had been made in this direction. The paper was discussed by Drs. Safford, Branch, Crouse and Laws.

The chairman of the Legislative Committee, Dr. E. D. Strong, reported that evidence against certain illegal practitioners had been collected and desired to know the wishes of the society as to further procedure. The committee was authorized by the society to place the evidence in the hands of the district attorney and urge that action be taken.

Dr. F. M. Barnes was received by transfer from the Logan County Medical Society of Oklahoma.

Hale-Floyd-Briscoe-Swisher Counties Medical Society met at Hale Center, October 20, with a very good attendance.

Dr. T. E. Crawford of Tulia read a paper on "The General Practitioner."

Dr. S. J. Underwood gave a demonstration of the application of ultra violet rays in the treatment of diseases.

The Crystal Theatre gave a show which was free to the public at 3 p. m., at which films furnished by the Texas State Board of Health were shown. About 300 persons attended this instructive show.

At 6 p. m. a sumptuous banquet was served to the society by Miss Allison and her class in domestic science.

Dr. A. L. Lincecum acted as toastmaster, and a very pleasant hour was spent, many after-dinner speeches being delivered while the society was regaling itself with the delicious viands before them.

At 8 p. m. a public meeting was held at the High School Auditorium, Dr. Lincecum was the first speaker and he told the audience that all the members of the society had qualified themselves by proper education to treat the sick and that each one of them had recorded a certificate from the State Board of Medical Examiners with the district clerk and was legally qualified to practice medicine. He explained to the audience that medical society meetings were in reality postgraduate schools of medicine.

Dr. C. C. Gidney of Plainview called the attention of the audience to the benefits to society of scientific research. He depicted the horrors of diphtheria before the introduction of antitoxin and the benefits that followed the use of this measure. He also told of the control of smallpox, malaria and yellow-fever by sanitation and preventive medicine, closing his speech by a denunciation of the quacks who attempt to treat the sick public without being educationally or legally qualified to do so.

Dr. R. S. Killough of Amarillo next spoke on the family doctor, making an eloquent appeal to the public to be sure that their doctor was qualified to treat the sick.

Motion pictures were then shown, after which the meeting adjourned.

Harris County Medical Society met October 31, with 62 physicians present.

The report of the board of directors was read and accepted by the society.

A committee consisting of Drs. A. J. Mynatt, L. F. Hodde, and J. G. Hodges was appointed to investigate group life insurance and report to the society.

A committee consisting of Drs. E. L. Goar, A. P. Howard, J. M. Trible, B. T. Vanzandt, and H. L. Bartlett, was appointed to consider the advisability of un-incorporating the Harris County Medical Society.

Harris County Medical Society met November 7, with 43 members present.

Dr. E. L. Goar reported a case of Acute Hemorrhagic Glaucoma Following Thrombosis of the Central Retinal Vein.

Dr. B. T. Vanzandt reported a case of Ovarian Cyst.

Dr. M. A. Gantt read a paper on "Pruritis Ani and its Treatment," which was discussed by Drs. Herbert T. Hayes, B. T. Vanzandt and F. A. Wapples.

Dr. E. H. Kilgore read a paper on "Some Phases of Thyroid Dysfunction," which was discussed by Drs. F. B. Smith, A. E. Greer, F. A. Barnes, C. U. Patterson and H. L. D. Kirkham.

Harris County Medical Society met November 14, with 74 physicians present.

Drs. B. W. and J. H. Turner read a paper on "Bone Metastasis of Carcinoma of the Prostate," which was discussed by Drs. R. K. McHenry, Jno. White, Lechenger, J. G. Hodges and H. L. D. Kirkham.

Dr. L. J. Spivak read a paper on "The Cure (?) of Syphilis," which was discussed by Drs. P. V. Ledbetter, B. W. Turner, J. C. Michael, J. H. Graves, M. A. Gantt and R. M. Wilder.

Dr. R. M. Wilder of the Mayo Clinic, read a paper on "The Pathology of Diabetes," which was discussed by Drs. C. U. Patterson, J. H. Agnew, B. F. Smith, J. E. Hodges, J. H. Graves and Wm. Lapat.

Lamar County Medical Society met November 5, at the Paris Sanitarium.

Dr. Preston Hunt of Texarkana, read a paper on "Cholecystitis."

Dr. J. L. Jennings of Roxton, read a paper on "Neuritis," giving a case report.

Dr. Grady Truelock read a paper on the "Etiology, Diagnosis and Treatment of Periodontia."

Dr. M. E. Daniels of the State Board of Medical Examiners gave an interesting history of the efforts of the board since 1907, to raise the standard of the practice of medicine.

Judge Dewey Lawrence and County Attorney John Sturgeon gave interesting addresses on the importance of the enforcement of not only the Medical Practice Act, but of all laws.

McLennan County Medical Society met November 14 for their annual banquet. The speakers of the evening were: Former Governor Pat Neff; Dr. C. M. Rosser, president of the State Medical Association; Dr. S. P. Brooks, president of Baylor University; County Attorney C. S. Farmer; State Senator Edgar E. Witt of Waco, and Dr. Holman Taylor, secretary of the State Medical Association, Fort Worth.

Tarrant County Medical Society met October 20, 1925.

Dr. C. P. Schenck presented a case in which a male attendant at the Arlington Heights Sanitarium had had the soft part of his nose bitten off by a lunatic. It was sutured back in place but most of it sloughed off. As it had granulated, a flap was raised from the right cheek and sutured in place to replace the defect. Part of this sloughed, but by persistent combatting of infection and several small secondary operations a most admirable cosmetic and functional result was secured. Dr. Harris related several instances in his experience, of difficult skin graft cases, and pointed out several factors of safety.

Dr. T. H. Thomason presented a case of a boy, 10 years old, who had suffered from multiple chondromata since the age of one year, and who had developed normally except for marked shortening of the left leg and arm. *X*-rays of the skeletal system showed the involvement of all the long bones of both left extremeties. The left pelvis, metatarsals and metacarpals also showed involvement. Dr. Thomason regarded it as a benign multiple central bone lesion, probably enchondromata. The patient has had three pathological fractures.

Dr. Jack Daly presented a case of a woman whom he saw in consultation, after she had been in labor 48 hours without making progress. The patient had had a normal birth and had walked at a normal age. At an early age, her mother noticed a lump on her right chest. As she grew up several other tumors appeared on her arms and legs; some seemed to disappear, while others appeared from time to time. One tumor, a chondroma, was removed from the right heel by Dr. Chas. F. Clayton. It was found that she had chondromata in the pelvis of such a size as to prevent normal delivery and a high cesarian section was done. A radiogram of the skeleton showed a great number of osteochondromata, many of them of very large size. A remarkable fact is that the child has two lesions similar to those of the mother, although there is no previous history of such lesions on either side of the family. The case was discussed by Dr. C. F. Clayton, who emphasized the difficulty of diagnosis of all bone tumors, even by the most expert men.

Dr. Jack Daly presented for Dr. L. H. Reeves, a man 66 years old, who several years ago felt a small lump at the inner end of the right clavicle. This grew very slowly for a time, but during the last year has grown very rapidly, become somewhat painful and presents radiological evidence of osteosarcoma. The Wassermann was negative. There was no response to therapeutic test, and no evidence of metastases elsewhere.

Dr. C. H. Harris presented a series of slides of interesting cases of uterine tumors, which illustrated the commoner and a few of the rarer types of tumors.

Dr. Farmer presented several slides showing periosteal and giant cell tumors.

The following committee was appointed for entertainment of the North Texas Medical Association: Drs. Sidney Wilson, chairman; Frank Schoonover, and X. R. Hyde.

Dr. Otis Hampton was elected to membership.

Dr. T. H. Thomason made a preliminary report for the committee on enforcement of the Medical Practice Act.

Tarrant County Medical Society met jointly with the Fort Worth Dental Society November 3, 1925. Dr. Clayton tendered the chair to Dr. J. T. Edwards, president of the local dental society, who presided over the meeting during the rendition of the program.

Dr. Jack Daly presented a clinical case of a white woman, 35 years of age, with lesions on both legs, thought to be actinomycosis. She gave a history of having been bitten on the leg by some sort of a fly while visiting in Oklahoma several weeks ago. This resulted in a red bump being formed, which spread, broke down and discharged yellowish material. Both legs are now involved and with the same excavated ulcers. A Wassermann was taken, but the report has not been received. Bacterial slides showed mycelial filaments, but no typical ray fungus. The urine is negative for sugar, and there is no luetic history. The treatment recommended was thorough excision of the sinuses, with iodide administration. The case was discussed by Dr. A. L. Frew of Dallas, from the standpoint of an oral infection of the

same character. Dr. Chas. Harris and Dr. I. C. Chase discussed the case, advocating radium in treatment of these cases.

Dr. Wm. S. Barcus read a paper on "Oral Focal Infection From the Physician's Viewpoint," in which he sketched the various views in regard to the subject in years gone by. He brought out the fact that teeth suffer from lack of use, due to modern civilization. Teeth have come to be suspected as the cause of all unknown or difficult diseases, but are not always proved to be such, and should not be removed without definite proof. A plea was made for preventive work in dentistry as well as in general medicine. This paper was discussed by Drs. W. O. Talbott and T. C. Terrell.

Dr. A. L. Frew of Dallas, discussed "The Etiology and Surgical Correction of Cleft Palate and Harelip," and presented lantern slides of these conditions. His paper was discussed by Drs. I. C. Chase, Chas. Harris, R. J. White, T. C. Terrell and Lyle Talbott. The discussion was closed by Dr. Frew.

Dr. Will S. Horn, chairman of the Committee on Law Enforcement, reported that letters had been sent out to all members asking for contributions and that 35 members had paid, to date.

Tarrant County Medical Society met November 17, with 30 members present. The minutes of the last meeting were read and approved.

Dr. W. S. Horn read a paper entitled "A Consideration of Some Factors of Arthritis." He outlined the etiology of these cases, being of the opinion that a gastro-intestinal origin was rarely found. He gave several case histories which were illustrated with x-ray plates. Differential diagnosis and treatment were given in detail. The paper was discussed by Drs. I. C. Chase, Chas. F. Clayton and C. H. McCollum.

Dr. T. C. Terrell read a paper entitled "Further Report on the Studies of Intestinal Parasites." He gave the incidence of each species in a series of 83 stools examined. The treatment recommended for most cases is salvarsan intravenously, although other measures are often found helpful.

Victoria-Calhoun County Medical Society met at Victoria in the club room of the Victoria Hotel, November 11. Among the out-of-town guests participating in the program were: Drs. R. W. Knox of Houston, chief surgeon of the Southern Pacific lines, and W. H. Cade of San Antonio. A tasty luncheon was served in connection with the meeting.

The Fourth District Medical Association met at Coleman, Texas, October 22-23, with about 75 members and visitors present. The meeting was one of the best that the society has ever had. The following program was rendered: Invocation, Rev. B. D. Kennedy; welcome address, Mayor E. P. Scarborough; President's address, Dr. T. R. Sealy; "Diagnosis of Prostatitis," Dr. H. L. Lobstein, Brownwood, discussed by Dr. Snider; "Diathermia in Treatment of Gonorrheal Epididymitis," Dr. C. T. Womack, San Angelo; "Care of Patient During Pregnancy and After Treatment," Dr. P. A. Baze, Mason; "Some New Obstetric Procedures," Dr. G. B. Foscue, Waco; "Diagnosis of Acute Osteomyelitis," Dr. Jewell Daugherty, Brownwood; "Report of a Case of Bilateral Comminuted Fracture of Patella and General Discussion of Patellar Fractures," R. J. White, Fort Worth; "Rheumatism and After Effects on Heart," Dr. H. H. Mitchell, Valera; "Psychological Effects of Diagnosis of Heart Disease," Dr. O. F. Gober, Temple; "The Causes of Sudden Death and Signs of Impending Death," Dr. C. M. Grisby, Dallas; "Accurate Diagnosis as a Prerequisite to Treatment and Prognosis of Heart Conditions," Dr. C. M. Steinwinder, San Antonio; "Lantern Slide Demonstration of Some Practical Points in Diagnosing Toxic Goiter," Dr. E. O. Rushing, Dallas; "An Orthopedic Clinic in Moving Pictures," Dr. W. B. Carrell, Dallas; "Report of Cases and Treatment of Tuberculous Empyema and Pyopneumothorax by Formaldehyde-Glycerine," Dr. T. D. Shotts, San Angelo; "Artificial Pneumothorax," Dr. Robert B. Walker, Sanatorium; "Time as a Factor in the Treatment of Pulmonary Tuberculosis," Dr. S. E. Thompson, Kerrville; "A Step in the Prevention of Tuberculosis—The Sanatorium," Drs. C. J. Koerth and R. J. McCorkle, W. O. W. Hospital, San Antonio; "The Cause of Obesity and Practical Points as to Treatment," Dr. Geo. M. Underwood, Dallas; "Latent Jaundice in the Differential Diagnosis of Gall-Bladder Pathology," Dr. J. E. Robinson, Temple; "Medical Publicity and the Chiro-Fight," Dr. Joe E. Dildy, Brownwood; "The Treatment of Ileocolitis," Dr. Jason Tyson, Santa Anna, discussed by Dr. R. Baily, Coleman; "The Diagnosis and Treatment of Colitis," Dr. T. E. Hudson, Stamford; "Amebic Dysentery," Dr. Will S. Horn, Fort Worth; "Diagnosis of Enlarged Thymus Glands" (lantern slides), Dr. H. Leslie Moore, Dallas; "The Common Skin Diseases, with Lantern Slide Demonstration," Dr. I. L. McGlasson, San Antonio; "The Treatment of Birth-Marks," Dr. Earl Crutchfield, Galveston; "Foreign Body Cases," Dr. Geo. S. McReynolds, Temple; "Psychoses Incident to Pelvic Pathology," Dr. Thos. Dorbandt, San Antonio; "Cerebro-Spinal Syphilis," Dr. J. A. McIntosh, San Antonio; "Early Diagnosis and Surgical Treatment of Brain Tumors," Dr. W. O. Ott, Fort Worth.

A very enjoyable feature of the meeting was a banquet served the association by the ladies of the First Christian Church.

The association passed resolutions warmly supporting the efforts of the State Medical Association to secure enforcement of the Medical Practice Act.

A delightful reception was given the wives and daughters of the doctors attending the meeting by the Coleman County Woman's Auxiliary, at the home of Dr. and Mrs. Jno. M. Nichols, the afternoon of the 29th. A very pleasing feature of the entertainment was a musicale in which Mesdames S. N. Aston, Wallace Gray, T. J. Allen, Adelle Adams, Oliver Dawson Cheney, Ethel Johnson, and Misses Kate Thompson and Grace Wilhoit gave pleasing numbers. After this program Mesdames G. B. Beaumont and R. T. Sealy poured tea at a table reflecting the chosen colors of black and gold, while Mesdames L. C. Martin, J. B. Warren and W. D. Allen passed sandwiches, cakes and mints. Mrs. R. R. Lovelady registered the 120 guests who called during the receiving hour.

After the scientific program, the following officers were elected: Dr. G. L. Lewis of San Angelo, president; Dr. J. W. Tottenham of Brownwood, secretary-treasurer. San Angelo was selected as the place of the next meeting.

Northeast Texas Medical Association met at Mt. Pleasant, October 13, with a large attendance. The following program was rendered: Invocation, Rev. H. J. Hays, Mt. Pleasant; Welcome Address on part of City, Hon. J. V. Moore, mayor, Mt. Pleasant; Welcome Address on part of Titus County Medical Society, Dr. A. A. Smith, Talco; Response, Dr. William Hibbits, president of Northeast Texas Medical Society, Texarkana; "Chronic Anemia," Dr. A. A. Smith, Talco; "Empyema," Dr. C. A. Smith, Texarkana; "Surgical Treatment of Infantile Paralysis," Dr. Ben L. Schoolfield, Dallas; "Diagnosis of Enlarged Thymus," Dr. H. Leslie Moore, Dallas; Treatment of Hypothyroidism," Dr. A. C. Scott, Jr., Temple; "New Graham Test in Diagnosis of Gallbladder Diseases," Dr. Charles L. Martin, Dallas; "The

Combined Use of *X*-Ray and the Cystoscope in Urological Diagnosis," Dr. George Hays, Texarkana; "Review and Presentation of Some Interesting Goiter Cases," Dr. George D. Mahon, Dallas; "Diagnosis and Prognosis of Rupture in Ectopic Pregnancy," Dr. Marcus M. Carr, Dallas Medical and Surgical Clinic, Dallas; "Hypertrophic Pyloric Stenosis, Infantile, Congenital," Dr. James C. Willis, Shreveport, Louisiana.

The association was entertained by a luncheon given by the local physicians and the Chamber of Commerce in honor of their guests, in the basement of the First Baptist Church. A public meeting was held that afternoon, at which meeting the principal speaker was Dr. C. M. Rosser of Dallas. In spite of the inclement weather, a large and appreciative audience heard this splendid address by the President of the State Medical Association.

The following officers were elected for the ensuing year: Dr. R. Y. Lacy of Pittsburg, president; Dr. D. J. Jenkins of Daingerfield, vice-president, and Dr. J. M. Ellis of Mt. Pleasant, secretary-treasurer. The next meeting of the society will be held at Texarkana, next April.

South Texas District Medical Association met at Houston, October 8-9, with a splendid attendance.

The following scientific program was rendered: Chairman's Address (Surgical Section), Dr. I. E. Pritchett, Houston; "Pruritis Ani—Hydrochloric Acid Injection," Dr. Herbert T. Hayes, Houston; "Unusual Case of Acute Infection of Epiglottis and Larynx in a Child—Tracheotomy and Recovery," Drs. Louis K. Daily and N. N. Allen, Houston; "Surgery of the Iliac Region," Dr. Carrol W. Allen, New Orleans, Louisiana; "Pancreatic Cysts (Traumatic)," Dr. A. O. Singleton, Galveston; "Massive Injections in Sacral Canal," Dr. R. L. Bradley, Houston; "Prevalent Errors in the Diagnosis and Treatment of Appendicitis," Dr. L. H. Denman, Lufkin; Chairman's Address (Medical Section), Dr. Guy H. Read, Beaumont; "Gastric Neuroses," Dr. Titus Harris, Galveston; "The Psychic Factor in Every Day Practice," Dr. B. P. Holland, Beaumont; "Cardiac Infarcts," Dr. Ghent Graves, Galveston; "Time as a Factor in the Treatment of Tuberculosis," Dr. S. E. Thompson, Kerrville; "Intussusception in Children," Dr. Walter Brown, Beaumont; Pulmonary Streptothricosis," Dr. M. E. Levy, Houston; "End-Results in the Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax, with Lantern Slides," Dr. Alvis E. Greer, Houston; "Case Reports," Dr. B. F. Smith, Houston; "The Value of the Two-Hour Renal Test in Chronic Nephritis," Dr. Paul V. Ledbetter, Houston; "Functional Nervous Diseases," Dr. E. W. Applebe, Houston.

A dinner was tendered the members and guests by the Harris County Medical Society, October 8.

The following officers were elected for the ensuing term: Dr. Walter T. Brown, Wallis, president; Dr. Wm. Lapat, Houston, vice-president; Dr. J. C. Alexander, Houston, secretary-treasurer.

Victoria was chosen as the place for the next meeting of the association, which will take place in April, 1926.

CHANGES OF ADDRESS.

Dr. H. C. Maxwell, from Mexia to Lubbock.

Dr. F. M. Boyd, from Luling to Tulsa, Oklahoma.

Dr. J. O. Rogers, from Chillicothe to Mesquite.

Dr. W. Hyde, from Big Sandy to Dallas.

Dr. Jos. E. Johnson, from Fairfield to Houston.

Dr. Willard C. Hearin, from Canton to Greenville, S. C.

Dr. Eleanor A. Harthill, from Corpus Christi to Lake City, Fla.

Dr. C. M. Sublett, from Beaumont to Houston.

Dr. E. H. McLaughlin, from Longview to Gladewater.

Dr. R. L. Ramsdell, from Austin to Dallas.

DEATHS

Dr. Ruby K. Embry died suddenly in her room at Abilene, Texas, October 19, 1925. Dr. Embry was found seated in a chair by her study table, with the light still burning and the gas stove lit. She had evidently been dead more than twenty-four hours at the time she was found. She had not been in good health for some time and had been treated for valvular heart disease, which may have been the cause of her death, although some suspected slow gas poisoning from a leaking connection of the gas stove.

Dr. Embry was born at McGregor, Texas, November 19, 1891. She attended Baylor University and then completed her academic training at the University of Texas from which she received the degree of Bachelor of Arts in 1912. She entered the Medical

DR. RUBY K. EMBRY.

Department of the University of Texas in the fall of 1912, and received her degree in medicine in 1916, being the only woman member of her class. She was an excellent student and was held in high esteem by her classmates. After leaving Galveston she entered the Bellevue Hospital at New York as an interne, later serving an internship in the New York Infirmary for Women and Children. She then served 8 months as a house surgeon in the United States Public Health Hospital in New York. After three years of private practice in New York City she returned to Texas and located at Abilene where she at once identified herself with the Taylor County Medical Society. Dr. Embry also held a certificate from the National Board of Medical Examiners. She was

a member of the Episcopalian Church and was also a member of the Business Women's Club at Abilene, the Mid-West Texas Medical Society, the State Medical Society of Texas, and the American Medical Association. Her many friends and professional associates join her loved ones in mourning her untimely death.

She is survived by her father and mother, Mr. and Mrs. W. W. Embry, a brother, W. H. Embry, and a sister, Nelle Embry, of Ballinger, Texas.

Dr. Claude L. Haynes died at his home at Wills Point, Texas, October 30, 1925, from a cerebral hemorrhage.

Dr. Haynes was born in 1876. He attended the Southern Methodist University Medical School in Dallas, from which he graduated in 1904. He practiced medicine eight years at Hiram, Texas, after which he removed to Wills Point where he continued to practice until 1914, at which time he retired from the practice of medicine and engaged in the cotton-seed business. Dr. Haynes was for a number of years a faithful member of Van Zandt County Medical Society, the State Medical Association of Texas and of the American Medical Association. He was a member of the Methodist Church and a Mason. He was an honored citizen of Wills Point and his passing will be mourned by his many warm friends.

Dr. Thomas Walter Wiley died at his home at McKinney, September 14, 1925, after a protracted illness. He had been confined to his bed for a number of months by a fall resulting in a fracture through one of his hip-joints.

Dr. Wiley was born near Greenville, Butler County, Alabama, November 13, 1838. He was the second son of Judge James M. Wiley, of Troy, Alabama. Two of his brothers served in Congress from the same district in Alabama. He received his degree in medicine from the Atlanta Medical College, September 15, 1859, and began the practice of medicine in his native State, continuing until the Civil War broke out, when he enlisted in 1861, in Company A, Sixth Alabama Regiment of Infantry, C. S. A. His army record was filled with the hardships and privations of that terrible conflict. He was wounded on the fifth day of the Seven Days' Battle Around Richmond, and again wounded at the Battle of Cold Harbor. In the Battle of Peach Tree Creek he was wounded in the left leg, July 20, 1864, and in spite of the fact that he was in intense pain from this severe wound, he managed to hobble on crutches 50 miles to his home after the surrender of Lee at Appomattox. This was necessitated by the fact that there were no conveyances obtainable and all the horses had been driven from that section by the Union army. After the war, he came to Texas, and in 1867 located at McKinney, Collin County. At the time he located at McKinney, he bought the plot of ground on which he had resided for 58 years at the time of his death. It was said of him by one of his close associates that "During his long years of practice in Texas amounting to nearly half a century, he did more charity work, perhaps, than any other one physician who ever lived in the county. Unusual success attended his practice to which he was devoted, of calling on and extending relief to the sick, afflicted and distressed. As a young man and throughout his mature years, he proved himself worthy of the obligations and honors associated with his profession. The practice of his early years entailed upon him many vicissitudes. He rode many tiresome miles horseback or in a buggy, over trails and muddy roads and in every kind of weather, in order to reach and prescribe for his patients. He possessed to a marked degree, a rare combination of simple virtues and signal achievements, that mark great men in every profession. He endeared himself to countless hundreds in this city and county during his nearly half century of active practice. Scores of children were named in his honor by appreciative patients and admiring lifelong friends."

Dr. Wiley had always taken an active interest in organized medicine and was for many years a faithful member of the Collin County Medical Society, the State Medical Association of Texas of which he was Vice-President in 1876, and of the American Medical Association. Dr. Wiley was a past master of St. Johns Lodge 51, A. F. & A. M., and a past grand master of the Grand Lodge of the I. O. O. F. of Texas. He was an active member of the Baptist Church, and was prominent not only in professional and fraternal circles, but was also ever active in civic affairs, which always interested him greatly.

Dr. Wiley was married in Troy, Alabama, in 1859, to Miss Susan E. Henderson, who died ten years later. In 1873, he was married to Miss Martha Elizabeth Hudson of Brookhaven, Mississippi. He was the father of five children by his first wife, and three by his second; J. E. Wiley of McKinney; Mrs. J. H. Ball of Dallas; Henry A. Wiley of Boston; Mrs. Lula Ditto, deceased; Mrs. Lela Henderson of Jacksonville, Florida; Mrs. E. H. Lingo of California; Walter H. Wiley of McKinney, and Mrs. Mary Carlton, who is deceased. One of his sons is Vice-Admiral Henry A. Wiley of the United States Navy, who is at the present time commander of the Pacific Fleet.

Dr. Wiley is survived by his wife, six children, eighteen grandchildren and twelve great-grandchildren, and by two sisters, Mrs. Julia Bowles and Mrs. Ida Beard, both of Troy, Alabama.

BOOK NOTES

Man: His Making and Unmaking. By E. Boyd Barrett, M. A., National University, Ireland; Ph. D., Louvain University; Professor of Psychology, 1924-25, Georgetown University, Washington, D. C. Octavo cloth, 269 pages. Price $2.50 net. Thomas Seltzer, Incorporated, publishers, 5 West 50th Street, New York.

This little volume on "The New Psychology," is both entertaining and instructive. One critic has said of it: "The New Psychology has here been simplified for the man in the street; more than this, it has been carried on and developed into an inspiring and beautiful science which the author terms 'Humanology.' He is, as it were, the Huxley of the new psychology for he has given it a beauty and a spiritual loveliness which should go far to win those who have felt that they needed more than the mere sex basis of Freudianism." When the author speaks of religion he seems to visualize it as being the Roman Catholic Church. He makes quite a point of the "confession," which is peculiar to the Catholic Church only, of all Christian churches. In his chapter on The Art of Mental Healing, he analyzes the various religions and systems whose basis of healing is that of mental suggestion or near-hypnotism. He then suggests the true field for mental healing and the manner in which this may be brought about. In his chapter on The Narcotomaniac, he appears to be poorly informed when he makes the following assertions, which I believe every physician of any considerable experience knows to be contrary to fact:

"The first steps are usually taken on the advice of doctors. Doctors themselves, and those whom they have initiated into the habit, comprise probably 75 per cent of drug-addicts. The remaining 25 per cent are those who are led into frequenting opium-

joints, and buying cocaine 'decks' by other habitues."

The habit of taking narcotic drugs did not originate among men of medicine, but along with many other vices and diseases, had its origin in that mysterious corner of the world known as the Orient. That the narcotic habit does not arise in any considerable percentage of cases from the giving of narcotics by doctors may be demonstrated in perhaps no clearer fashion than by simply pointing to the unquestionable fact that drug addiction in the United States is on an alarming increase in spite of the rigorous enforcement of the Harrison Narcotic Act. Although doctors are perhaps tempted as is no other profession to embrace the use of such drugs, the knowledge of the inevitable catastrophe which would result, acts as such a powerful deterrent that the self-administration of such drugs among the medical profession is comparatively rare. The chapter on The Criminal is especially interesting, in view of the fact that insanity, especially the so-called *temporary insanity*, is so often the plea of last resort in the trial of criminals.

Manual of Psychiatry. For the Medical Student and General Practitioner. By Paul E. Bowers, M. D., Examiner in Lunacy, State of California; Lecturer in Neuropsychiatry, Post-Graduate Medical School of the University of California, Los Angeles. Octavo, cloth, 365 pages. Price $3.50 net. W. B. Saunders Company, Philadelphia and London.

This little volume of some 360 pages is intended for the medical student and general practitioner, as stated in the title. For this purpose it is well written and the subject matter well handled. For the medical student whose time for reading is limited, the volume is a good buy. For the general practitioner who has neither the time nor the desire to go into the subject deeply, the book can be highly recommended. Extraneous material has been omitted and without tiresome search the reader can quickly gather the fundamental facts, as generally accepted, about each subject. For this reason the book should prove popular in the field for which it was intended.

The Dentist's Own Book. A Faithful Account of the Experiences Gained During Forty-Six Years of Dental Practice, Including a Complete Bookkeeping and Recording System and a Description of the Management of a Dental Practice. By C. Edmund Kells, D. D. S., New Orleans, Louisiana. 8vo., cloth, 510 pages, 106 illustrations. Price $7.50 net. The C. V. Mosby Company, St. Louis, U. S. A., 1925.

This is an intensely practical book written for the dentist, by the dentist. As the sub-title indicates, it is not a scientific book on the practice of dentistry, but is a very practical volume on dental economics. The book is thoroughly pervaded with the author's own personality which lends charm and interest to the volume. Although the book is written for the dentist, the doctor of medicine might learn much from its perusal. Dentistry has always been more of a *business* than the practice of medicine. While the modern dentist is cultivating more and more the art and science of dentistry, and hence the practice of dentistry is becoming more and more a profession as well as a business, the practitioner of medicine might with profit learn from the dentist some of his business methods. We know of no book which would give a better insight into these than Dr. Kell's very instructive and entertaining volume.

The Medical Follies. An analysis of the Foibles of the Healing Cults, Including Osteopathy, Homeopathy, Chiropractic and the Electronic Reactions of Abrams, with Essays on the Antivivisectionists, Health Legislation, Physical Culture, Birth Control and Rejuvenation. Second Edition. By Morris Fishbein, M. D., Editor of the Journal of the American Medical Association. 12mo, cloth, 223 pages. Price $2.00. Boni and Liveright, publishers, New York, 1925.

Most of us have heard of the Folies Bergere, the Zigfeild Follies and the Greenwich Village Follies, and we strongly suspect that some of our readers have risked one eye anyway. Even though they have seen all of the Follies enumerated, they have not seen anything yet unless they have also seen the Medical Follies, written, staged and conducted by the erudite and irrepressible editor of *The Journal of of the American Medical Association.* This book would be a good one to occupy the time of the doctor's patients, while waiting in his reception room. We have observed "Physical Culture" on the reception table of perfectly ethical but careless practitioners of medicine. If any of our readers are guilty of this charge, they might supply their patients with the *antidote* in the form of Dr. Fishbein's very entertaining and instructive volume.

Dyspepsia, Its Varieties and Treatment, by W. Soltau Fenwick, M. D., B. S. (London), Late Physician to the Evelina Hospital for Sick Children, London. Second Edition, Revised. 8vo., cloth, 515 pages, illustrated. Price $6.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

The author states in his preface that the above volume is the outcome of a clinical experience gained by the personal examination and treatment of more than 18,000 persons suffering from indigestion. The book is divided into ten chapters, as follows: I. The Varieties of Dyspepsia and Their Differential Diagnosis, II. Dyspepsia Due to Abnormalities of Secretion, III. Dyspepsia Due to Failure of the Muscular Power of the Stomach, IV. Dyspepsia Due to Inflammation of the Stomach, V. Dyspepsia Due to a Disturbance of the Nervous Mechanism of the Stomach. VI. Dyspepsia Due to Displacements of the Stomach, VII. Dyspepsia Due to the Presence of Foreign Bodies and Living Creatures in the Stomach, VIII. Dyspepsia in Infancy and Old Age, IX. Dyspepsia Dependent Upon Diseases of Other Organs, X. Intestinal Indigestion. The present edition has been very carefully revised, although the general scheme of the former edition has been preserved. The work gives much internal evidence of thorough study and keen observation of the whole subject of disturbances of digestion on the part of the author, who is quite well known to the profession, especially to those interested in gastroenterology. The book closes with extensive references to the literature on the subject and a very comprehensive index.

The 1926 Medical Record Visiting List, or Physicians' Diary, Revised, pocket size, bound in black fabrikoid and full gilt. Price $2.00 net. William Wood and Company, Publishers, 51 Fifth Avenue, New York City.

This visiting list has achieved a wide popularity among physicians, as attested by the fact that each year's edition is always rapidly exhausted. The 1926 edition has been thoroughly revised so as to bring it up to date. Besides having ample space for recording memoranda concerning 66 visits each week, there are in the front of the book many useful tables such as are found in the addenda of medical dictionaries, including tables of weights, the common poisons and their antidotes, signs of death, etc. This little volume has become so well known that it is hardly necessary to say more.

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

A Happy New Year!—The JOURNAL holds a good thought for its readers, advertisers and friends everywhere, for this large, splendid New Year that is about to come upon us. We hope our readers will find profit and pleasure throughout the year; that our advertisers will prosper in their business, and that our friends and well-wishers at large will be happy. These things and more we desire for those whom we serve. And in order to prove our good will, we solicit the opportunity to help. We hope those who may profit from contact with us will proceed at their pleasure to gain contact. We will serve faithfully, and as efficiently as we know how.

Service has been the slogan of successful business for some years, and we are sure that the will to render true service has been responsible for much of the marvelous success we see in the business world today. Sometimes it seems that service is losing ground in favor of so-called efficiency. It will be a sad day when we substitute mechanical efficiency for personal service. Quantity production has been eminently successful in reducing price, but it has added nothing to value. We appreciate that modern civilization has largely passed beyond the stage of individual service, and we will agree that it is best so in many particulars. Many of us could hardly afford to carry watches, or ride in automobiles, or take advantage of many of the good things of our day, except for that. However, the system pushed to its limit would eliminate much of value and take much of the joy out of living. Its application to many of the trades and any of the professions, would be distressing.

Time was when a craftsman took pride in producing that which his customer wanted and would individually be pleased with. At the present time it is rarely the case that the consumer is considered; hours are settled upon, prices fixed and products predetermined, without reference to him, his convenience or desire. Children are fed into the public school hopper and pass between the unyielding millstones of hard and fast curricula; sick people are fed into hospitals and clinics; the law is about the only service left to us which is not so generalized as to be almost impersonal,

SERVICE!

We're born to service, you and I;
And should we need the urge of words and pen
To show us duty to our fellowmen?
The chain of service spans the world;
And he who fails to weld his link,
Lo, weakens all the rest, and lets them sink
And sag and drag, and lose their power,
Because his part is missing.

We're born to service, you and I;
The more we're blessed, the more we're bound to bless;
The more we gain, the more we owe success.
Responsibility expands apace with growth.
The loyalty and faith that lift us up
Should be repaid in like, to fill the cup
Of others, needing help and hope,
To send them bravely forward.

—HERBERT H. STALKER, in the *Prism*.

and we pay for that. Would it be too much to wish that medical service might continue through all time on the same personal basis as of today? We wonder if it is because of the tendency of the times, or whether it is our own fault that there is such a demand for socialized medicine, or commercialized medicine, or impersonal medicine of some sort. We wonder, sometimes, whether physicians appreciate their peculiar position in the scheme of things, whether they demand and receive the unrestricted confidence of their people, and receiving the same whether or not due returns are made on the trust. We wonder whether we understand that we as physicians must depend upon each other for support and encouragement, and information; whether we appreciate that the field of medicine is so large and so difficult that no one of us can master any considerable part of it. Why may we not consider the medical profession as a great group, or clinic, or whatever we may call such a combination of professional interests?

Of course, we know the answer in part. Physicians are human beings, partaking of the same traits of human nature that other human beings partake of, which tends to preclude the millennium, at least for the immediate future. There is no way to insure that only the intelligent and the sincere may enter the practice of medicine. It is not possible to make the public understand that the professions, including that of medicine, should be filled with learned people, as the original designation, "Doctor," contemplated that it should. If the practice of medicine cannot be made to pay a fair return on the effort, it will be difficult to get the best type of young manhood and womanhood into the profession; if it can, the self-seeker and the grafter will crowd in, particularly if they can do so without bothering to get the necessary education.

But the part of the answer that we feel we do know is this: We must as a unit rally around the ideals of medicine; we must utilize the honorable agencies at hand in this day and time for enabling the public to gain a thorough comprehension of these same ideals and a knowledge of the evils sure to come when idealism in the practice of medicine is lost sight of; we must, ourselves, fully realize that knowledge carries responsibilities in addition to advantages, so that the more we know, the more we are obligated to pass on our knowledge, appreciating that what we learn today is the result of accumulated knowledge of past ages, and, finally, we must ever bear in mind the Golden Rule, which a writer to us unknown has somewhere expressed in the following new and impressive manner:

"The biggest and best game on earth is played by the Golden Rule. Two or more can play at a time. To begin the game, there is one thing that you must always remember:

"*You move first.*

"Another interesting feature of the game is, you do not have to beat to win.

"In the game played by the Golden Rule you win when you make a friend, and the only way you can make or hold a friend is by first being one.

"*You move first.*

"Some people try to reverse this rule—try to play the game backward. Then it ceases to be a game and proves to be a gamble, where you lose."

Financially Speaking.—We are told by the "Ward Systems Company," an organization which makes a specialty of promoting campaigns for funds, that the financial situation is improving, and, in fact, is at this time rather good. Compared with this same time a year ago there is, for instance, a considerable increase in bank clearings and in the amount of trading on the New York Stock Exchange, which latter is accepted by those who deal in money, we are told, as a rather sure business barometer. There is also an increase in the amount of dividend and business disbursement, and money is said to be easier to borrow than for some time past. Perhaps the improvement that comes closest home to us is the increase in the amount of cotton and wool being consumed and the number of spindles that are now in continuous operation. There is said, also, to be an increase in total crop production. The employment situation is better and the average weekly pay roll for labor has recently shown a gratifying increase.

All of this being true, we must anticipate a prosperous year for the medical profession, although we have seen no report on the condition of the "top" crop, which Southern physicians will understand to mean the doctors' share thereof. Perhaps the late onset

of winter has left considerable top crop, which, if true, will be good news. More encouraging, however, than the top crop situation is the rather evident determination of the doctor to demand compensation for his labors. In this we applaud his efforts, while at the same time uttering a word of caution. We are at this particular time striving with might and main to convince the public of the value of scientific medicine in contrast with quackery. Our primary object is, of course, the protection of the public, but it will inevitably occur that as the value of any service becomes established its price will tend to become adequate and stabilized. In our publicity and law enforcement endeavors we are thoroughly unselfish, notwithstanding we are due ultimately to profit in some measure. It would seem a part of unwisdom to at this time resort to any procedure which would discount our good intentions. As it is, we are openly and vehemently charged with the intent of creating and perpetuating a "medical trust," and that our principal effort is to drive out competition. We cannot afford to advise our readers that they should refrain from charging adequately for their services and making every proper effort to collect what is due them; we can only urge a due regard for the personal element involved, and suppression of publicity which might be considered not good psychology at this time.

With this thought in mind, we wonder whether it is a good idea to resort to a great deal of publicity in urging the payment of doctors' bills, particularly the use of the copyright ads at the present time being used rather generally throughout the country. To begin with, the holder of the copyright requires a considerable fee for the use of the copy, to which must be added a legitimate price for the space used in the newspapers. We perhaps do not have in hand all of these ads, but we do have some of them, and while we are inclined to be a bit critical of the idea largely, as we say, because of the present situation, but basically because it does appear to be a sort of *begging* for what is our due, we must admit that the copy we have is good and quite appropriate. Such advertising *should* get results, but it is doubtful whether it *will*. Most of those who will pay at all need no such whip, and most of those who won't pay can't be greatly influenced in this manner. Its effect will be on that uncertain number who are merely careless and slipshod in handling certain of their obligations, and this sort in particular; and these, doubtless, can be as easily influenced some other way.

Personal appeal through the reading columns of the press is of this sort, except that here the only expense involved is the cost the space used, which, as for that, is purely a matter of good will and favor as between the doctor and his friend the editor. As in the case of the copyrighted advertising matter referred to above, some of the items of this character we have seen are quite good. They really have the advantage of being more personal. Some of them are signed by every doctor in the communities referred to. One item, which we presume was paid for, states that the doctors of a community are going to supply each other with lists of their respective patients who are delinquent in their accounts, that those people who are accustomed to pay by promise and who shift doctors when this does not satisfy, may be known and estimated for what their patronage is worth. The following "Creed" is announced:

"We believe in our patients and want them to believe in us.

"We believe they should pay what they owe us without delay.

"We believe in reasonable credit, but that don't mean forever.

"We believe in keeping books, but always can use cash.

"We believe patrons should remember that we have problems.

"We believe in extending charity, when necessary, but charity starts at home.

"We believe in sending statements, but that gets monotonous at times.

"We believe patrons who can pay and don't, are injuring us as well as themselves.

"We believe in everybody paying his own way. We try to pay ours.

"We believe in compelling people to pay us when they try to evade payment.

"We believe the laborer is worthy of his hire. That includes us.

"Moral: If you are not going to move to some health resort, pay that old doctor bill."

This is not the first time this idea has been used and, as we say, there can be no criticism of the practice either from the standpoint of ethics or policy beyond, perhaps, the fact that our critics will seize upon it as an evidence of

our intention to create a trust and feather our own nest.

The physicians of another community joined in the following statement of their attitude towards their patients and patrons, in the matter of pay:

"————, TEXAS, BROADCASTING.
LISTEN IN.

"There is a time when nearly everyone needs a doctor.

"We have in the past done our best to take care of the sick in our community in cold, rain and mud, day and night. We have made it possible for you to pay your obligations to your bank, merchant and landlord, then to have our bills left unpaid and treated with indifference.

"We do not like to see your family suffer, but we are not responsible for them and we cannot work for nothing; in fact, there is an obligation we owe to the man who does pay cheerfully, and we expect to stay with him. Frankly, we need what is due us and we want it. We do not expect to continue to work for those who do not pay us for our service. If you have a good reputation for paying your doctor you can get him. Otherwise you cannot expect him to answer your call.

"If you have not settled your old bills it will be necessary for you to see us and make satisfactory settlement of them at an early date, as this is now in effect."

Physicians of still another community have gone at the matter in the following manner:

"During the past year we have been as lenient and as accommodating as our time and conditions would permit; we have stood by our patrons through thick and thin, and the time has now arrived when our bankers and merchants are needing what we owe them, just like they need what you owe them. It has always been our policy to make our services as free from commercialism as possible and to render service to the poor as well as the rich, thus administering to the suffering of humanity from a purely humanitarian standpoint. We have come to you in the dead hours of the night, through both heat and cold, and have waited all this time so you may be able to make settlement. Our expenses go on every day and also at night, as it costs money to make the trips we make, and it is time we were paying our obligations. We have attended you and the family without asking for a mortgage on your crop or stock, trusting you for the good citizen you are to repay us when conditions would justify. Yet it seems to be a rule that we are the last of all to be paid. But we feel that we are most certainly worth our hire, and we are sure that when you read this and you owe us for services rendered, you will surely not fail to make amends for payment. If our patrons lose respect of their indebtedness to us and utterly fail to reimburse us for our work, then we must demand security for our services. This, of course, does not refer to those who are faithful in meeting their obligations with us, but is meant for those who have not made any effort to pay us, some of whom have been in arrears for the past several years. We want to continue to be your family doctor, and will give you the ever faithful service that we can, but please remember that there is now something due us. We hereby serve notice to the public that all obstetric work will be CASH from this date on."

Perhaps it is better that the subject be approached in a more personal manner, if publicly at all, if it is possible to secure the sympathy of friend editor. The idea is not that the doctor may get something for nothing, but that he may be represented in the court of public opinion by his next friend. It is not simply that he is a creditor who is being denied that which rightfully belongs to him; rather, it is that he is a public benefactor who is forced by the very nature of his calling to submit to imposition in this regard, and it is up to the public, including the aforesaid editor, who claims that he is working for the benefit of the whole community, as the doctor is, aside and apart from the matter of remuneration, to help adjust matters. The following most excellent comment, clipped from the *Luling Signal*, is of this variety:

"HOW OLD IS YOUR OLDEST DOCTOR BILL?

"Look through your unpaid bills. Is the oldest bill there the doctor's bill?

"Why do you pay everyone else first and leave him until the last? If it is because you know he will not press you severely and the others will, isn't it only fair to pay the doctor first, who is most lenient?

"Don't penalize your doctor just because he has tried to be 'easy' with you.

"Never forget that he came whenever you called, night or day. He gave freely of his time and experience—the only two things he has to get paid for.

"He came willingly—without a grouch, without a fret. He tried humanely to help you, or your dear ones.

"And now that the trouble is past, the crisis o'er—are you as faithful to him?

"Or do you still neglect to pay his bill? Do you always, when your money comes in, put his bill on the bottom and pay others whom you know will make you suffer if you delay?

"Think how unfair this is. Unfair to the faithful doctor, and unfair to your reputation as an honest citizen.

"You play a cruel game when you let your doctor's bill get old. He needs money just as you do. Suppose other people from whom you derive your income should hold up your money! Wouldn't you have a right to be angry?

"If you cannot pay, say so. If you can pay part and do not, then there is only one thing that can be true—you are a "dead-beat"—a person who has money, but will not pay his honest debts.

"Stop now—and think!

"How old is your oldest doctor bill?

"If this shoe fits—it is your own fault. And your doctor, as he reads this, is thinking of you!"

These observations are made more as a matter of interest than advice. Our message is that the medical profession should have in mind not only that it should serve but that it should make the service reasonably profitable. But it is hardly possible to make the practice of medicine highly remunerative as a whole, and it will not be at all feasible, at least for a time, to bring to bear business principles, pure and simple. As has been often pointed out, lawyers can charge enormous fees for settling an estate without a squawk from anybody, when the doctor who was in attendance at the time of the death

of the deceased is lucky if he gets any pay at all for his services. Indeed, a short while ago the newspapers were filled with caustic comments on a fee sought to be charged by a physician who had attended a rich man in his last illness, alleging graft, distortion and everything else, when as a matter of fact the fees involved in the settlement of the estate were many, many times larger than the bill for medical services, and no one commented upon that. Recently the press carried a story covering the settlement of a large estate, involving some three or four million dollars. The interesting part of the story to us was the statement that the lawyers, consisting of three firms, were allowed a quarter of a million dollars for their services, which were rendered within a period of three weeks, and quite probably mostly by accountants. As Dr. Dildy so well said, in an address before our Association last May[1], referring to this same subject: "If any of you doctors think you amount to much, rescue some prominent tight-wad from an untimely grave, restore him to his former health and give all his over-anxious heirs the blues. Your bill for keeping him out of hell will not be enough to hold his respect. He will give you a meagre check, and hie himself away to Glenrose to convalesce."

It is, after all, purely a matter of honest service and a fair charge therefor, and a little understanding on the part of the public that adequate medical service by a friendly educated doctor, is a thing to be valued.

Piggly Wiggly Medicine.—The desire to get something for nothing is in keeping with human nature. Medicine is no exception. So great is this urge that the faker has waxed fat in the land, and particularly is this true as applies to the treatment of the sick. The wise merchant cuts down his overhead to the point where he can undersell his competitor. The unwise merchant cuts down the value of the merchandise offered in competition with other merchants. It is easy to see that the limit of salvage in the lost motion of commerce is easily reached. The effort to save cost by large buying power is well represented by the so-called "chain stores," which are of a great variety. The saving in production and distribution is best represented by the much maligned "trust." The quarrel that we have heretofore had with both the chain store and the trust, has been seriously affected of late by a change of policy. At first there was a tendency to freeze out the other fellow and then to make the public pay. The far-seeing business man soon realized that there was big money in running a small business on a large scale, and that it was not necessary to do more than to proceed on this perfectly legitimate basis. The results were the same.

The merchant who could not line up with enough other merchants to enable him to either produce or purchase on a comparative basis with the trust or the chain store, was simply out of luck when it came to selling; he was caught between the upper and the nether millstone, as it were. Then came the necessity of making still other savings and there seemed to be but one avenue open, that of "service." Service was first successfully eliminated in the restaurant business, in the well known cafeteria, and then in the "Cash and Carry" stores, "Piggly Wiggly," and other establishments of the kind. These institutions do not charge for the time one consumes in waiting on oneself—at least, so far as we can see. This salvage combined with that made through other channels, profits the public materially. It remains to be seen what the public will do eventually, when there are no independent mercantile establishments, and none of which sell *service*.

The practice of medicine has always been a strictly personal service. Indeed, in the old days, when there was nothing in medicine but the personal judgment of the practicing physician, it could not be otherwise. Time and study have so developed the practice of medicine that there are many problems in any case that can be worked up by non-medical agencies, even including many of the more personal items of advice the physician has always been in a position to so helpfully extend. Indeed, we have reached the point in development where it is economically impossible for the physician to serve his patient as completely as heretofore, comparatively speaking, and make a living at it, if he keeps his charges within bounds. So, from an economical standpoint there have arisen first, partnerships, and later, groups or clinics, or whatever we may choose to call such combinations.

In these combinations the effort is to supply to the patient the collateral services incident to his treatment by the attending physician, at a price that he can afford to pay, including the element of time. Still, in such combinations the element of personal service has not been lost sight of, and it has all along been understood that somewhere in a group is the equivalent of the "family physician." It may be that the connection between the attending physician and the group is rather incidental and of a temporary sort, but it is there, nevertheless. It seemed for a time that this tendency to group physicians would seriously disturb the prac-

1. Texas State Journal of Medicine, June, 1925.

tice of medicine by individuals, but that fear has not been realized. Beyond a doubt there is a limit to the possibilities of such combinations, in the light of popular demand, just as there is a limit to the extent that a hospital is made use of in bedside treatment of the ailing public. This limitation, in our experience, is based entirely on the desire of the public for personal service. Neither the hospital, nor the clinic (or group) can at the present time progress beyond the point where the patient can receive personal attention at the hands of some one. In other words, we have not yet reached the time where we can pour our patients into a hopper at the top of a machine and gather them in, properly prepared, labeled, wrapped and addressed packages, at the other end of the machine.

It long since appeared to be economical and desirable to handle charity practice on the group or clinic basis, both in hospital practice and the out-patient service. This economy was necessary, in the interest of the physician, the patient and those underwriting the service. The tendency to thus segregate charity practice, freeing the private office of the physician from such cases, was a development universally applauded by the medical profession wherever it was put into use. Very naturally, in this service every effort was made to save the time of the physician, largely through the employment of social workers, nurses, and the like. The doctor certainly did not owe the charity patient the same degree of personal service that he owed his private patients, who, for the most part, were his personal friends. Much of this service could, therefore, justly be relegated to less expensive help. In other words, the legitimate aids to the physician were marshalled to his support here, as in his private practice, and they did just so much of his work as they could legitimately and profitably do.

Then came the frank commercial medical service, with its attending, and to the ethical physician, disgusting publicity. As the legitimate group or clinic is comparable to the proper practice of medicine by individuals and partnerships, so this service was, and is, comparable to the practices resorted to by individuals and groups of advertising doctors, whom we denominate as "unethical." In both instances the advantages of grouping obtain, the difference residing in the matter of publicity.

Now comes the "part pay" clinic of the ethical sort, in which it is proposed to sell the highest type of medical service to the consumer at cost. We know of no outstanding clinic of this sort other than that at Cornell, the announcement of which created such widespread comment a few years ago. For the present this particular clinic, and we presume any other ethical clinic of the sort, professes to serve only those who cannot afford to pay the full price for the type of medical service they desire, and who are yet desirous of avoiding anything savoring of charity; in other words, a class of people who are willing to "pay cash and carry," dispensing, as much as possible, with the element of personal service. And, be it said to the credit of Cornell, a maximum of good results appear to have been obtained. This clinic was established in the fall of 1921. There had been clinics of the sort for several years, notably in Boston, New York and Brooklyn, but not so well organized or on such a large plan. We would not put in this class the Mayo Clinic, but we might fairly so classify the out-patient department of the Henry Ford Hospital in Detroit. Indeed, the Mayo Clinic appears to have always been operated along the same lines the practicing physician handles his business, namely, charging what the patient can afford to pay and striking a fair average as between the two extremes.

When the Cornell Clinic undertook in this manner to salvage a portion of the expense of its medical teaching by purchasing medical service and distributing it to the best advantage of all concerned, there was considerable criticism, as might well have been expected. Two objections were raised, first that the competition thus offered the private physician was unfair and, second, that the ethics of the medical profession were seriously violated in the matter of the publicity put out. The members of the staff of the clinic, being among the high-class members of our profession and leaders in scientific thought, all members of their county society, of course, there could be little sustained objection, and reports of committees appointed to investigate the institution have been by way of pacifiers rather than justifiers. At no time has there been a commendatory report, although there has been no condemnation. The character of publicity indulged in by the clinic was speedily modified to meet the criticisms, but the determination to take from the practicing physician that class of his patients who were not able to pay the regular fee but were able to pay something, has been persisted in; and, according to late reports, the clinic has thus wiped out the usual annual deficit and is now proceeding on a profit basis. Thus, the cost of teaching medicine has been reduced at the expense of those who practice it. Perhaps that is as it should be, but we think not.

In this clinic doctors are paid so much per month, or so much per session, and the patients are charged so much per visit and so much for the related service. Clinic chiefs receive a flat salary of $1,500 per year, with some exceptions; first assistants receive $7.00 per session of two and one-half hours each, and second assistants $5.00 for the same time. As the management very well says, these rates of remuneration may be favorably compared with those which are enjoyed by physicians of similar experience, employed in the clinics of large industries—which does not seem to be by way of justification. That is, it pays the same if its medical employees put in their whole time at it, which they do not, as a rule, do. We might wonder how, if the country were filled with this type of clinics, the physician would dispose of his spare time so as to enable him to make a living fairly comparable to that of the skilled mechanic. We might go further and wonder what would become of the practice of medicine if there should be organized in each community, great and small, a clinic of this sort, in which the overhead has been guaranteed, incident to another sort of service, and in which the great bulk of the work is done by laymen and nurses.

According to a statement of the committee in charge of the Cornell Clinic, the average cost per patient at the clinic is about one-fifth of the specialist's rate, and two-fifths of the minimum private rate. We wonder how many practicing physicians would not be willing to accept an average of two-fifths of their charges for this class of patients, particularly when a large part of the service can be extended or contracted at will, without materially affecting results. For instance, it is estimated that a patient with a Colle's fracture pays at Cornell an average of $37.50 for complete treatment, including *x*-ray service, massage and the like, and twelve visits to the clinic. We know of several physicians amply competent to care for such injuries who would be glad to get an average of this much out of cases of this sort, particularly where it is a matter of office visits. It is alleged that the patients treated at this clinic are the average of the patients in the community, and that the average income is something like $2,000 per year. This is taking quite a slice out of the normal business expectancy of the average physician, to say the least of it.

Getting back to fundamentals: As we anticipated in the beginning of this discussion, there is a legitimate demand for a service that the people can pay for, and as President Dr. Wilbur of the A. M. A. said at one time in a public address, if the medical profession does not meet the demand, the laity will organize to do so, and there will definitely and firmly be interposed between the physician and his patient, a third party who will distribute his services on a commercial basis. That this is no idle threat, witness conditions in England and in Germany! A newspaper dispatch is before us now, reciting the starved condition of the medical profession in England under the panel system. The dispatch is headed "Medics Starve Due to 'Panel' in England," and it goes on to recite that many physicians are applying for positions that pay $10.00 per week at the outside. A newspaper item from Berlin states that physicians are running taxicabs for hire, and rendering such incidental medical service as may be required by accidents, and that there is a surplus of 10,000 physicians in Germany as a whole. The dispatch asserts that the family physician is extinct, as such, and that doctors are called upon only to attend people who are dying. Physical examinations are made for insurance purposes for as little as twenty cents. The medical consultations required of policyholders, are had at the rate of fifteen cents each. In both of these countries the practice of medicine was allowed to get out of hand through insidious political maneuvers, and the net results are going to be that not only the medical profession will suffer but the public will be denied that high-class medical service to which it is entitled and which it should have, albeit legitimate pay is exacted therefor.

There does not seem to be the same concern over the price of legal service and the services of the mechanic, to name only two of a large number that might be referred to, as there is in the matter of medical fees, and yet neither of these services are as strictly personal as medicine is and of a right should be. It is one thing to dispense with the services of a clerk in a grocery store and quite another to dispense with the more intimate, personal service of the family physician.

A National Physician's Home. — Several years ago an experiment was undertaken by certain physicians in New York, to learn what, if anything, should or could be done for aged, infirm or indigent physicians who had served their time and were simply awaiting the end. A home was established and numerous eligibles placed there for care and encouragement. The projectors of this movement, who have watched its development with keen interest, have now decided that the enterprise is feasible and quite worthy, and should be established on a national basis.

Therefore, a movement is under way to secure a national endowment fund for the support of this and perhaps other units in other sections of the country. Perhaps we have not thought of the need of such an institution because, for the most part, doctors either make good financially, die before they become dependent, or connect themselves with fraternities, and the like, which provide for their sustenance in old age and during periods of incapacity. We recall that the State Medical Association of Texas for several years studied this problem, through the medium of a carefully selected committee, and the conclusion was that there was no need of such a service in Texas. If we remember correctly, only five physicians could be found during the several years of study of the problem, who would be eligible as beneficiaries in such a movement and who had not been otherwise adequately provided for. However, some few years have passed since then and conditions are changing rapidly. Evidently there has been a demand for something of the sort in the more congested sections of our country. Texas is filling up rapidly and will very soon reach the degree of saturation from the standpoint of population, comparatively speaking, that the Eastern states have long since reached, and this particular problem may appeal to us.

The project under discussion has been approved by the American Medical Association and the New York state and county medical societies, and seems in every way worthy of support. We would not, in Texas, be greatly interested in an institution of this sort in New York State, for the reason that few if any of our worthy and indigent physicians would be in a position to participate, but we assume that as the movement takes hold and is accepted by the profession and people throughout the country, this objection will be met by establishing units in different parts of the country. As we understand it, there will be no concentrated drive for funds, either in or out of the medical profession, but the public will be given an opportunity to subscribe. Perhaps there are those who have more wealth than they know what to do with and who are sufficiently appreciative of the services of the medical profession to make substantial donations to such a cause. It seems that the principal hope for endowment is in this direction.

The committee in charge of the movement has figured that the charity service of the medical profession in this country amounts annually to the neat little sum of $135,000,000. This conclusion has been arrived at after a most careful analysis of the situation, and in accordance with the usual practices of statisticians. It may be said to be reasonably accurate. There are those who will discredit all claims for charity practice made by physicians, alleging that there is no good intent and that the amount charged to charity is equivalent to the usual losses charged up against business enterprises in making profit and loss balances. Probably it is true that we all try to avoid charity practice, not because it is not a satisfaction to us to do practice of this sort, but because we must pay our bills and endeavor to at least lay up a competency for the years of our inactivity. It is also true that we expect to do a great deal of charity work, and few of us hesitate to do it when opportunity offers. While we do this work without hope of fee or reward, we do expect some consideration therefor at the hands of the public we serve. Perhaps financial security in our old age is one of the most important of these considerations.

Frozen Endowments.—It is a mistake, sometimes a sad one, to bequeath money for a purpose which may cease to exist. There are millions of dollars thus made worse than useless. Much of the senseless opposition to vaccination and vivisection comes of the fact that years ago when these two scientific projects were not understood, and perhaps when there was abuse, either through ignorance or carelessness, of the finer human sensibilities, well-meaning people left money for the correction of what they then considered, and perhaps, had reason to consider, evils that should be suppressed. Even in this day of great scientific advancement, when all but the most ignorant know the value of vaccination and the still greater value of animal experimentation, there is opposition. There is enough money to pay for it, and there are always services to be bought for any sort of enterprise. By the same token, there are always those who are of a contrary way of thinking and who refuse to reason. The combination is vicious in a restricted way, and very aggravating in every way. It is felt that most of the endowments resulting in this work would never have been made under present conditions. How simple it would have been had these endowments been placed in the hands of those who knew the facts of science and could not be fooled by the specious pleas of nonconformists. As a matter of fact, is it not reasonable to feel that at least some of these good people would have been glad to see their money used not altogether for preventing these evils but for their correction, and then the perpetuation of the good that resulted from the enterprise they had endowed? That would mean at this time seasonable support instead of opposition.

The American Legion recently undertook to raise several million dollars for the care and treatment of disabled veterans of the World War, their families and dependents, where needed. A trust fund was established, headed by reputable leaders of thought in our country, and provisions were made for the perpetuation of the board, and not only for the distribution of the funds but for a change of purpose of the endowment, when conditions sought to be corrected no longer existed.

Millions of dollars are tied up in orphans' homes throughout the country at this very time, that cannot be used for any other purpose. When parents cease to die from preventable diseases and preventable accidents, and when numerous other plans for the prevention of dependencies of this sort render orphanages obsolete, what is to be done about it? Already it has been determined that institutional care of orphans is less desirable than other methods that have been worked out, under many of the circumstances existing.

Hospitals are receiving donations for specified purposes, the which may be nullified by developments in the not very distant future, and all around us are similar conditions. In New York there has been established a community trust for the purpose of administering endowments of every character intended for the public good. The trustees are nationally known business and professional men and the purpose of the movement is to prevent the so-called "frozen endowment." No group of citizens are more directly concerned in a movement of this sort than are physicians, who see on every side of them the results of unchanging endowments under rapidly changing conditions. This proposition is a little far removed, so far as Texas is concerned, but the idea is worth considering. Doctors frequently have opportunities to advise with people about such matters, and should be able to convince any prospective donor of any good cause, that they can administer their bequest better through an intelligent board than they can with a dead hand.

Publicity and Enforcement Campaign Grows in Importance as the public gets the idea. It is one thing to sympathize with the underdog in a tight and quite another to condone wilful lawbreaking. Heretofore the lay public, generally speaking, has looked upon the efforts of the medical profession to enforce the law as simply a contention between "schools" of medicine, than which, of course, nothing could be further from the facts in the case. It is always a difficult matter to get the ear of the public in any but sensational matters, and particularly so where the aforesaid public is either suspicious of the propaganda or feel that there are those who are paid to care for the situations involved. Indeed, it is a difficult matter to attract the attention of the most vitally concerned, as, in our own case, the medical profession. When the present Medical Practice Act was put on the statute books it was felt that the public, being the most vitally concerned, should see that it was enforced. It proved to be rather a difficult matter to enforce the law because of certain deficiencies. These were corrected following much political and legislative travail, and still the law was flaunted.

The idea of protecting the public against ignorance and imposition in the practice of medicine was as of much consequence to us at this time as it was at the time the law was passed and at the time its enforcement was made possible, so, upon the solicitation of the State Board of Medical Examiners we undertook to arouse the public to its dangers and at the same time prove that the law could be enforced. In this effort we have to date been unexpectedly successful, considering all of the contingencies that had to be met. It has been necessary to re-arouse the medical profession to its responsibilities and then get the movement in convincing and effective form before the leading and influential citizens of the several communities in which the law was being most notably violated. Through the coöperation of the State Board of Medical Examiners and county societies, our committee has been promoting publicity dinners, to which the key people of the communities in which they are held have been invited. President Rosser has in every instance made the principal address on these occasions, covering in particular the Medical Practice Act, its purposes and the necessity of its enforcement. There have been other speakers, both lay and professional. Following these dinners there has usually been a determined effort to prosecute illegal practitioners of medicine, which efforts have for the most part been successful, either in bringing about conviction or relieving situations in a variety of ways. Where there has been failure to convict, which for the most part, has been incident to technicalities that have to be taken into reckoning when court procedures are invoked in this country, the promoters of the movement have profited by the wholesome educational effect produced by the trial. County societies have published, at their own expense, numerous well prepared display arguments in favor of the enforcement of this law and of insur-

ing competency in the sick room. Lists of legalized practitioners have been in a like manner placed before the public, in order that the public may know who are presumed by the State to be qualified to assume the serious duty of caring for the sick and of preventing sickness.

The details of all of these activities have been editorially referred to in the past several numbers of the JOURNAL. While we feel that it is necessary to keep this matter constantly before our readers, mainly that they may know that the work is not lagging and may plan to participate therein as opportunity offers, we do not feel called upon to repeat or to go into further details. Suffice it to say that chronic violators of the Medical Practice Act are becoming convinced that this is not a spasmodic movement, to be abandoned as soon as our limited patience and limited funds have been exhausted, and many of them are leaving the State or preparing to do so. It is one thing to be occasionally tried for violating a law and quite another to face continuous prosecution and eventual injunction.

A significant fact is the abandonment of a widely advertised speaking tour by the national president of one of the chiropractic associations, and the rare appearance of late of the attorneys of the national association in cases of chiropractors coming before the courts for alleged violations of the Medical Practice Act. Whether these, and similar other occurrences show the way the wind blows, or merely indicate a few contrary zephyrs, remains to be seen, but we are of the opinion that it is still the case that rats leave the sinking ship, and the wise rat goes while the going is good, and there is some place to go to. And still be it known that we are not trying to run anybody away; we merely want all who remain with us to be law abiding, agreeable citizens.

In the only organized resistance that we know of, the chiropractors have resorted to numerous expedients to ward off the inevitable, none of which have been more than temporarily successful, if that. The most notable of these maneuvers is the effort on the part of a Fort Worth firm of chiropractors to prevent by federal injunction, the Attorney General of the State and the District Attorney of Tarrant County, from prosecuting them for alleged violation of the Medical Practice Act. Much has been said in the newspapers about this matter, most all of which has led to conclusions quite contrary to the facts in the case. There has never been an injunction or anything like it, and the court has emphatically so stated. Many chiropractors throughout the State eventually joined in this petition, and all told, we believe, four separate efforts were made to keep the plea before the court by amendments. We will have more to say in regard to this matter at another time. At other times, also, we will deal with additional details pertaining to the campaign. In the meantime, let it be thoroughly understood that the trustees are determined that the campaign shall be financed to the extent necessary to render that support to the Board of Medical Examiners that it has promised, and that has been approved in advance by the Association through its house of delegates.

Next Annual Session, May 25, 26, 27.—We are directed to announce that the next annual session of the State Medical Association will be held in Houston, May 25, 26, 27. The 24th will be given over to the several organizations customarily holding their annual meetings on the day preceding the beginning of our own. There is at least one other group to be added to the list, the newly organized "Texas Federation of Health Education," and there may be others. The date was placed thus late in the season in order to clear the dates for the annual session of the American Medical Association, which will be held this year in Dallas, April 19-23, with sufficient margin to make certain that neither meeting will interfere with the other. Incidentally, the effort to avoid several contingencies, this among the others, is the cause of the delay in announcing the dates of our State meeting.

This is merely to inform all and sundry. While arrangements for the session are well under way, we may not at this time anticipate any of them. Due and complete announcements will be made.

Perhaps it is well to call attention at this time to the necessity of submitting titles and synopses of papers for the scientific program, as early as possible. According to the by-laws no paper will be accepted until the program is actually compiled, and the program will be compiled following directions of the Council on Scientific Work. Manifestly, section officers cannot make selections until they have before them all of the offers that are to be made. Manifestly, also, if this system is to be applied, prospective authors will have to go ahead with their papers regardless of acceptance, in view of the requirements that all papers appearing on the program must have been read in full before county societies, or; under certain contingencies, before district societies. Therefore, the thing to do is for the prospective author to compile his paper now, at least in rough draft, send the title and a synopsis

to the secretary or chairman of the proper section, with the request that same be filed for consideration at the proper time, then use the first available opportunity to get on the county society program. If the paper is accepted, all well and good; if not, also all well and good, as the county society has benefited, and the author as well. Incidentally, the paper is ready for presentation to a district society, and perhaps for other purposes. For the immediate convenience of our readers, we reprint here the list of section officers:

Section on Medicine and Diseases of Children: Chairman, Dr. Boyd Reading, Galveston; Secretary, Dr. W. P. White, Henderson.

Section on Surgery: Chairman, Dr. A. B. Small, Dallas; Secretary, Dr. J. Hal Gambrell, El Paso.

Section on Gynecology and Obstetrics: Chairman, Dr. J. H. McLean, Fort Worth; Secretary, Dr. J. W. Nixon, Jr., San Antonio.

Section on Eye, Ear, Nose and Throat: Chairman, Dr. E. H. Vaughn, Tyler; Secretary, Dr. D. L. Bettison, Dallas.

Section on Radiology and Physiotherapy: Chairman, Dr. J. W. Torbett, Marlin; Secretary, Dr. Leroy Kuser, Gainesville.

Section on Public Health: Chairman, Dr. H. O. Sappington, Austin; Secretary, Dr. W. A. King, San Antonio.

Dues Are Due.—We are accustomed to look upon the payment of dues very much as a matter of convenience, which, of course, it is. However, there is quite a different viewpoint, if we choose to consider it. The official year is from January to January, and dues are for that period of time. In other wards, dues are due January 1, and payable on or before that date. The by-laws very properly give the county society secretary until April 1 in which to make his annual report. Once made, this report establishes the fact of membership of his society up to the actual date it is submitted. All who have not paid are clearly and definitely at that time not members. A hiatus in their respective memberships has been created. It is true that when they do pay they become members for the year, but this period of time is not covered in several important particulars, notably in the matter of medical defense, which observation we make by way of caution. It may, and undoubtedly often happens, that many members fail to pay by January 1 and are, therefore, as a matter of technical fact, not protected until the time they actually made payment to their respective county society secretaries, but we are directed to take the word of the county secretary, as extended in his annual report, as to who are members for the year. We cannot emphasize this situation too much.

There is really no valid reason why the great majority of our members should not pay up promptly, and most certainly by so doing a great deal of trouble will be avoided. The county secretary is, as a rule, a hard-working individual and receives no compensation for his work. The members of his society should remember this and help him by paying dues promptly. The State Secretary and his office force are paid to do their work, and stand ready to do the best they can without complaint, but it must be remembered that when dues are piled in at the last moment in an overwhelming mass, the effort to keep the record straight is quite a strain, and things are more likely to go wrong under such conditions than if payments and reports were made more gradually and in due time.

A special effort should be made to reclaim to membership those of the brethren who dropped out last year because of the raise in dues, no matter what the circumstances were. It was anticipated at the time the dues were placed at $15.00 that a sizable number would drop out, but it was also expected that they would return to the fold in due time regardless of the size of the dues. Now that the dues have been reduced to $10.00, this reclamation should be speedy. Surely, no one could object to that amount. If there still are those who do not believe that the money of the Association is being properly expended in carrying out the rather expensive publicity and educational campaign, their recourse lies with the House of Delegates, and it is up to them to get in the game. The Association is a democratic organization and is entirely responsive to the wishes of its members. Majority rules, in spite of allegations to the contrary. It is true that a balance-wheel is provided, but that provision is fundamental in all governments which may be regarded as true democracies. We do not now refer to socialism.

At any rate, at this particular time, when the American Medical Association is going to visit us and when so many questions of such great importance are confronting us, we should all get together and strive with might and main to tighten up our organization, that it may be a power in the land and render to the medical profession due returns on its investment in all desirable particulars. Not the least of the considerations just here is the fact that the Association draws a sizable interest each year on average daily balance in the bank, and no better use could be made of the surplus money of our members or our county societies, than to place the amount of their dues there instead of retaining it in their respective non-interest-bearing funds.

To Anderson County belongs the honor of making the first payments for 1926. Between the dates of December 22 and the first of the

year, the secretary, Dr. R. H. McLeod, who is also councilor of the district, remitted dues for the following of his members: Drs. E. W. and H. R. Link, G. D. Small, R. H. McLeod, E. B. Parsons, A. Arthur Speegle, R. M. Dunn and R. Q. Hunter, Palestine; M. L. Austin, Montalba, and E. H. Scarborough, Brushy Creek. We announce this as our honor roll. It comprises one-half of the normal membership of the society.

The membership cards are *green* this year. *Get a green card!*

The American Medical Association will meet in Dallas, April 19-23. This announcement was made in the July JOURNAL, but the fact was not at that time stressed, in spite of the pride and pleasure occasioned by the decision of this great organization to visit us, for the first time in history. At that time Texas was under promise to make the visit of another great organization, the Southern Medical Association, a notable event, and it was not desired to complicate matters by placing the two organizations in competition in the matter of attendance from our own State. The Southern Medical has come and gone, and we feel a pardonable glow of satisfaction and pleasure when we think of the visit. We can now look forward to the coming of our guests of the A. M. A., and plan to give them a warm reception. At the same time, we can anticipate the personal advantages due us from the experience.

Arrangements are going forward in Dallas quite satisfactorily, according to fountainhead information. The dates selected for the meeting cover that period of our spring season which has uniformly given the most attractive weather reports during the past several years, which is the best that can be done in that respect. If we can strike an average of our weather for this season, the days will be balmy and delightful and the nights just cool enough to give the women an opportunity to display their light furs and evening cloaks. Straw hats and low-quarter shoes will be in order, but felt hats and top shoes will not be out of order. This will be a matter of satisfaction to our visitors from the North and East, and likewise to those who come to us from the South and West. Meetings will be held in the fair grounds, which are sufficiently near town to make them easily accessible, and there is room and to spare for all of the activities of the Association. The advantages of this arrangement need no discussion, at least so far as our readers who have before attended an A. M. A. meeting are concerned. Several entertainments that will likely prove notable in the annals of the Association are on the cards. There will be more to say about these matters later on. Our purpose now is merely to announce the occasion and to urge our members to qualify for attendance and begin to arrange accordingly. It will be remembered that no one can register at this meeting who is not a Fellow of the A. M. A., and that only members of the State Medical Association can become Fellows. The Fellowship fee is $5.00 and covers subscription to *The Journal.* That in itself is a bargain. Fellowship is from January to January, which would be an argument in favor of the immediate payment of Fellowship dues. Subscription to *The Journal* is another matter, of course.

The Dallas County Medical Society has announced, and the Trustees of the A. M. A. have approved, the following local Committee of Arrangements:

Chairman, Dr. Edward H. Cary; Secretary, Dr. W. W. Fowler, and Treasurer, Dr. W. D. Jones, all of the Medical Arts Building, Dallas.

Advisory Council: Drs. Chas. M. Rosser, A. B. Small, John O. McReynolds, J. S. Calhoun, W. W. Samuell, F. A. Pierce, C. M. Grigsby and R. W. Baird, Dallas; Drs. Wm. Keiller and J. E. Thompson, Galveston; Drs. M. L. Graves and R. W. Knox, Houston; Drs. J. H. Burleson and W. B. Russ, San Antonio, and Drs. Holman Taylor and I. C. Chase, Fort Worth.

Chairmen of subcommittees, all of whom reside in Dallas: Sections and Section Work, Dr. H. Leslie Moore; Registration, Dr. H. M. Doolittle; Technical Exhibits, Dr. R. B. Giles; Scientific Exhibit, Dr. George T. Caldwell; Entertainments, Dr. John H. Dean; Hotels, Dr. M. P. Stone; Printing, Dr. Geo. L. Carlisle; Finance, Dr. A. I. Folsom; Diagnostic Clinic, Dr. J. M. Martin; Halls and Meeting Places, Dr. C. C. Nash; Reception, Dr. Elbert Dunlap; Alumni and Fraternal Entertainment, Dr. G. C. Kindley; Programs, Dr. Rice Jackson; Information, Dr. W. W. Shortal; Telegraph and Telephone, Dr. T. C. Gilbert; Badges, Dr. A. R. Thomasson; Women Physicians, Dr. Minnie L. Maffett; Golf, Dr. Leland Ellis; Local Transportation, Dr. W. Lee Hudson; First Aid, Dr. M. E. Lott.

There is another important matter in this connection, *the number of papers allowed each section is limited.* Those of our members who have a message for us along scientific lines, should lose no time in making the offer to the appropriate section. We hope potential authors will not be backward in this regard. The section officers expect offers, that is the plan of procedure provided by the Association. It must be that way. And we may pause to remark that no member is too humble to offer, and no member is too high and mighty to be required to offer.

GETTA GREEN CARD!
NOW
While the Getting is Good

ORIGINAL ARTICLES

THE RESPONSIBILITY OF THE GENERAL PRACTITIONER IN THE DIAGNOSIS OF GLAUCOMA.*

BY

JOHN O. McREYNOLDS, M. D., F. A. C. S.,
DALLAS, TEXAS.

In presenting a paper on this subject, it is far from my purpose to indulge in any criticism of the general practitioners, but rather to suggest an extension of their field of labor in harmony with their scientific attainments and well developed sense of professional responsibility.

On behalf of the ophthalmologists, I must express our profound appreciation of the generous spirit of the general practitioners in turning over to us so completely practically all of their work in ophthalmology. Much of this practice they could handle with splendid satisfaction and with only a small amount of additional preparation and effort. I have many times heard some of my friends of the general profession proclaim that they did not undertake any kind of eye work. This is surely a very liberal attitude, but I am going to make an appeal to the general profession to share with us more of this work and more of the responsibility. I am convinced that this would redound to the credit of the medical profession and to the benefit of the public. A man who can fathom the deep seas of serology, neurology, and internal medicine could add a very helpful service to practical ophthalmology if he would only divest himself of the notion that the eye is clearly beyond the domain of his proper activities. The matter of differential diagnosis in ocular diseases is sometimes an imperative call upon the family physician. He is the only one, perhaps, in a position to warn the patient of the perils confronting him. He is the one who must initiate measures of relief or overcome the error of placid inaction. It is his knowledge of the prognosis in ocular affections that must give to the patient a measure of his danger and a measure of the reasonable hope he may cherish.

With these general considerations in mind let us study together the features of acute congestive glaucoma. Acute glaucoma is a condition of extreme importance, not only to the patient and the oculist, but the general practitioner as well, because the responsibility of making a correct diagnosis and instituting appropriate treatment, many times will devolve primarily upon the family physician. It falls to his lot ordinarily to see the patient first, and it is in the early stage of acute glaucoma that the greatest good can be accomplished by an accurate diagnosis and by judicious management. There is no other condition that requires so imperatively correct treatment from the beginning, because, if incorrect management is employed, either in the way of active applications or a dilatory practice, disastrous results that cannot be overcome by any amount of subsequent diligence and care, may speedily follow.

It is especially important that this condition should not be confounded with another condition with which, unfortunately, it is most likely to be confounded, namely, acute plastic iritis. The importance of this differentiation depends upon the fact that the treatment in these two conditions is diametrically opposed. In the case of acute congestive glaucoma, the great advantage to be sought is a speedy reduction in the tension, and this is accomplished most successfully by causing a marked contraction of the pupil, which results in pulling away the root of the iris from the filtration angle, thus opening up, to some extent, the spaces of Fontana and the canal of Schlemm; while the object to be accomplished in acute plastic iritis is just the reverse—a speedy dilatation of the pupil to prevent permanent adhesions between the iris and the anterior capsule of the lens.

Let us now consider the important points of differentiation in diagnosis between acute congestive glaucoma and acute plastic iritis. The differential points may be considered under two general headings, the subjective manifestations and the objective manifestations.

SUBJECTIVE MANIFESTATIONS.

1. *Pain.*—The pain in acute congestive glaucoma quite resembles that in acute plastic iritis inasmuch as the pain is distributed not only in the region of the eyeball and the orbit, but over the entire side of the head. However, the pain is much more acute in its character, much more rapid in its development, and much more extensive in its distribution in acute congestive glaucoma. It is frequently mistaken for a severe neuralgia, so the patient not infrequently comes to us with a history of having gone blind with neuralgia, when in reality he has gone blind with acute congestive glaucoma characterized by intense pain resembling neuralgia.

The constitutional manifestations are likewise more pronounced in acute glaucoma. There may be a distinct depression with nausea and vomiting, which seldom occurs at the onset in acute iritis. In both of these conditions, the pain is deep-seated in character, because of the fact that it is produced

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 5, 1925.

by pressure upon the deep-seated sensory nerves of the globe, and is in marked contrast with the superficial, scratching pains that are present in conjunctival inflammation. While the pain is excruciating, the sensitiveness of the cornea to the touch of the finger is rapidly reduced in acute glaucoma, because of the paralyzing pressure upon the sensory nerves, but the sensitiveness of the cornea to the touch is preserved throughout the course of acute plastic iritis.

2. *Vision.*—The vision is speedily reduced, or actually annihilated, many times within a few hours, in cases of acute congestive glaucoma, on account of the rapid development of increased intra-ocular pressure interrupting the circulation within the globe, exerting marked pressure upon the optic nerve fibers as they come through the lamina cribrosa, and also by producing an edema of the cornea and a cloudiness of the other dioptric media. The vision in acute iritis is slightly diminished by the accumulation of plastic exudates in the line of vision, but this result does not rapidly supervene. In addition to the loss of central vision, there is frequently a reduction in the field of vision in acute glaucoma, which may be made out in the earliest stages of the trouble, particularly if there have ever been preceding acute attacks, or a preceding chronic glaucoma. This reduction in the field of vision may consist in a concentric limitation of the field with a special reduction on the nasal side, or with various forms of irregular scotomata. It may also be observed that in looking at a lighted lamp in a room, for instance, the patient may distinguish a kind of halo around the light somewhat resembling the appearance of a street light as looked at through a frosted window pane on a winter night. This halo is due to the cloudiness of the cornea produced by the edema consequent upon the intra-ocular pressure, and it may assume the appearance of rainbow rings around the light.

3. *Discharge.*—There is no purulent, or muco-purulent discharge, as an essential feature of either acute glaucoma or acute iritis, because the pathological process is intra-ocular rather than extra-ocular. However, there is in both instances a profuse flow of tears.

OBJECTIVE MANIFESTATIONS.

In both of these diseases the eye is intensely red, but in acute glaucoma there is a more marked distinctness of the episcleral veins and anterior ciliary veins, so that they stand out in bold relief because of the interference with the return circulation occasioned by the intra-ocular pressure. The eye assumes a kind of purplish hue on account of the venous stasis. In acute iritis there is more of a diffused pink color surrounding the limbus and extending over the globe. In acute glaucoma the cornea rapidly assumes a steamy appearance, resembling a pane of glass that has been breathed upon, while in acute iritis the cornea remains perfectly clear. The pupil in both cases is relatively immobile, but is especially so in acute glaucoma, and in this condition is widely dilated, while in acute iritis the pupil is inactive but contracted, unless a mydriatic has been used, in which case the iris will show adhesions to the anterior capsule of the lens, giving an irregular outline to the margins of the pupil. The anterior chamber in acute glaucoma is much shallower than normal and may be entirely obliterated, the iris and the lens pressing against the cornea, while in acute iritis the depth of the anterior chamber is unaltered. If the media are sufficiently clear to permit of an ophthalmoscopic examination, the fundus in acute glaucoma will show some reduction in the caliber of the retinal arteries, with a marked increase in the caliber of the retinal veins, which are distinctly tortuous in their course, on account of the interference with the return circulation. There may be hemorrhages, also, especially of the venous type in acute glaucoma, and these are unusual in acute iritis. The optic discs, in acute glaucoma, if the condition has supervened upon a more or less chronic trouble, will show a marked excavation which is total in character and presents characteristic features that distinguish it from other forms of excavation of the optic disc. The entire lamina cribrosa is pushed backward by the intra-ocular pressure, so that the retinal vessels appear broken in their course over the rim of the sclera. While in atrophy of the optic nerve, there is a pallor of the disc and a slight diminution in the prominence of the disc, but with no actual recession of the lamina cribrosa. In a physiological excavation of the optic disc, the central portion may appear deeply excavated, while the peripheral portions, containing the normal number of normal optic nerve fibers, will show no such depression.

The essential condition of acute congestive glaucoma is the increase in intra-ocular pressure, and upon this one circumstance develop all of the symptoms enumerated. The eyeball may vary in hardness from a very small increase, capable of being appreciated by the touch, to those cases of extreme hardness in which the eyeball is apparently hard as marble. This intra-ocular pressure is variously estimated, by palpation with the fingers, or, more acurately, by a tonometer,

which measures in millimeters of mercury the intra-ocular tension. In acute plastic iritis there is no increase of importance in the intra-ocular pressure.

If I should utter a single sentence that would emphasize most the dangers of this condition, I would say that whenever a patient becomes suddenly blinded, or has his vision rapidly reduced, associated with pain radiating to the brow, the temple, and the side of the head, with a dilated pupil, with a shallow anterior chamber, with halos around the light, and with increased intra-ocular pressure, caution the patient to secure at once not dilatation of the pupil, but a contraction of the pupil, and follow this up with a careful investigation into the exact condition. Finally, in all cases of diminished vision no time should be lost in ascertaining, as accurately as possible, the exact situation, so that remedial measures may be adopted promptly and not indefinitely postponed in the vague hope of better days.

It is a matter of the utmost humanitarian and economic importance to secure vision for a patient when it is possible to do so rather than have the patient spend the final years of life in the fruitless waiting for complete blindness. This protracted delay simply results in the loss of general physical strength and endurance, so that when the patient finally reaches the stage of complete blindness he may be so enfeebled by the various infirmities of age that he is not in so favorable a condition for any kind of operation, and has such a poor remnant of life left that he may not have the courage and confidence and strength to undergo an operation for the restoration of sight, and thus, hesitating on the brink of the grave, passes on from the darkness of this world into the deeper darkness of the great unknown.

ABSTRACT OF DISCUSSION.

Dr. H. L. Hilgartner, Austin: It appears to me that the main principle in the treatment of incipient glaucoma is to bear in mind that the pressure, which is the immediate cause of the condition, is the result of a clogging of the fine filtering tissue of the ligamentum pectinatum. This obstruction against the escape of lymph from the eye, must generally be caused by conditions which affect the consistency of the blood and its clotting, or the presence of corpuscular elements which might stick fast in the minute passages of the filter. It may be assumed that such conditions of the blood are caused by the imperfect operation of various physiological functions, and it is, therefore, of prime importance to take every precaution that the alimentary canal be freed from toxin-forming conditions; that the kidneys be properly discharging their functions, and that any other source of toxemia, such as infected teeth, sinuses, etc., be dealt with. It might be advantageous to stimulate the action of the sweat glands in the effort to free the blood and lymph of whatever substances may be causing the occlusion of the filter through which the lymph must escape from the eye.

In my perusals of the literature of this subject, for instance, Dr. F. H. Verhoeff's able article on "The Pathogenesis of Glaucoma" in the January, 1925, issue of the Archives of Ophthalmology, it has always seemed to me that the attention is too much fixed on the histological study of the end conditions which are the results of glaucoma, and that the possibly preventable causes are too little regarded. All questions of therapeutic importance must be concerned with the presence in the blood and lymph of constituents which cause obstruction to the normal escape of lymph in the filtering tissues through which it leaves the eye.

Dr. J. M. Woodson, Temple: In my experience it is not the cases of acute congestive glaucoma that fail to get proper attention, but chronic cases in which very few symptoms are present. In acute glaucoma the patient will seek relief promptly and the general practitioner will generally see the futility of trying to relieve by customary measures. I have had too many cases lately, and if you have enough cases you will have your reputation ruined. I rather encourage glaucoma cases to see other oculists; however, we must not try to escape responsibility. I have found very little relief or satisfaction in looking for general causes of glaucoma. I know this is textbook knowledge, but I have found cases of glaucoma which had gone through a clinic from which the consultants had sent back the statement that such and such was probably the cause of the disease, but very cften the removal of the supposed cause did not give relief.

Cases that are most unfortunate are those incorrectly diagnosed as cataracts, and in which delay is advised until the cataract ripens. The delay results in blindness from atrophy of the optic nerve.

Dr. Ray Daily, Houston: Dr. McReynolds possesses, and also uses, the novelist's technic of emphasizing a point by exaggeration. I doubt that the responsibility of neglecting glaucoma can be justly placed on the physician; it is the optician who is to blame for the blindness due to negligence in treating glaucoma. A case of acute glaucoma consults a physician who usually sees that the patient is properly taken care of, if he cannot do so himself. It is the simple glaucoma case, with the shrinking fields and fairly good central vision that is neglected because the patient consults an optician. The optician changes his glasses, while the peripheral fields shrink, and it is only when central vision fails that he sends the patient to a physician. Only recently I saw two cases, under the care of an optician for several years, whose central vision was 20/50, and whose fields were limited to ten degrees from the fixation point. If Dr. McReynold's paper could be given wide publicity, a great service would be rendered to the public.

Dr. J. J. Richardson, Fort Worth: Cases of acute glaucoma I see, that come from the general practitioner are more often treated for neuralgia, or sinus trouble, or acute conjunctivitis, or not treated at all. These cases, handled by the rural practitioner, are generally treated with argyrol, aspirin, etc., but very seldom with atropin. Cases that are treated for a few days as conjunctivitis or sinus trouble, are usually in very bad condition when they come to the oculist. There is another type of cases that the general practitioners treat, that of increased tension following injury. It is a very difficult thing to handle these cases. We often see tension increase in injuries of the cornea where the pupil has already been dilated, and for that reason I believe the general practitioner should not attempt to make a diagnosis of any other ocular condition than the removal of foreign bodies.

Dr. J. W. Ward, Greenville: Dr. McReynold's

paper is not only instructive to this body of ophthalmologists, but should be heard or read by every general practitioner in Texas. It recalls a very pathetic case in my own experience when I was engaged in general practice, which was diagnosed by a confrere and myself as supraorbital neuralgia and treated as such until the patient was hopelessly blind. I feel sure that this case is not unique in its class. The cardinal symptoms as laid down by Dr. McReynolds, presented before every county medical society, would, without doubt, appreciably decrease the number of undiagnosed and improperly treated cases of glaucoma.

Dr. McReynolds (closing): I wish to express my appreciation of the very generous discussion by the members of the Section. It was the purpose of the paper to include only a consideration of two acute diseases that are frequently confounded, recognizing the existence of a very large number of other ocular conditions that call for accurate differential diagnosis, not only by the oculist, but by the general physician as well.

Under all circumstances, we should seek to impress the fact that atropin is an extremely dangerous agent. I always have some hesitation in sending a patient away with an atropin solution, even if he has a well marked iritis. The condition may develop at any time into one of increased intra-ocular tension, requiring a modification of the treatment.

Through all of this discussion our hope has been to emphasize the idea that every intelligent physician can differentiate many of these ocular conditions with sufficient accuracy to save a number of his patients from the tragedy of blindness.

TOTAL AND RESERVE ACCOMMODATION IN PRESBYOPIA.*

BY

F. J. SLATAPER, M. D., M. Med. Sc.
HOUSTON, TEXAS.

The determination of the punctum proximum is one of the essential tests of every complete refraction of all intelligent patients. This should be determined by some actual accommodation tests, rather than by estimating it from the patient's age. The amount of the added lens for near vision is based upon the patient's accommodation. The presbyopic eye must keep some of its accommodation in reserve in order to do near (33 cm) work comfortably. The average amount of reserve necessary for a normal presbyope is designated as normal reserve accommodation. The relation of the normal reserve to the total accommodation is expressed in three formulas, divided according to the amounts of total accommodation. These formulas are original. My method of measuring the total accommodation is given here to emphasize certain controls in testing the accommodation. A discussion of the details of technique often contributes to more accurate results. There are doubtless many other methods as good and some may be better.

The technique for determining the punctum proximum is as follows: 1. If ametropia in either eye causes the vision to be very defective, it should be approximately corrected by a rough manifest refraction. 2. A good light is so placed as to illuminate the test object, but not to shine in the patient's eyes. 3. Duane's modification of Prince's rule is held by the patient above his nose in the plane of the correcting glass (14 mm. in front of the cornea). The left eye is covered, and the patient is directed not to close the covered eye. 4. Plus or minus spheres are added to *bring the near point approximately to 33 cm.* A plus lens is added for weak accommodation and a minus lens for the strong. The age of the patient will usually give a clue to the glass needed. 5. The "accommodation line" on a small card as used by Duane is carried along the rule until the line blurs or doubles. This point is noted on the rule in diopters. 6. Two similar lines parallel but separated by the width of one line, is now used as a check. These lines are placed so close to the eye that they appear single, and slowly moved away from the eye until seen as two distinct lines. This point is noted. If it is in agreement with Duane's method, no further testing of this eye is needed. 7. If it fails, as it often does because of too little intelligence, or lack of coöperation on the part of the patient, then printed words are used. Snellen's .50, Jaeger's No. 1 type, or Oliver's letters are placed within the near point and moved slowly *away from the eye* until the letters can be read. The accommodation is then estimated from these three tests. 8. The right eye is now covered, and the left eye is tested in a like manner. Monocular accommodation is determined in this way.

The accommodation should be tested at approximately 33 cm. Sheard gave the following two reasons for testing at no shorter distance: (1) "There is a more rapid increase of the visual angle than of the circles of diffusion, hence the person under test is able to read at a point nearer than that at which accommodation is still being proportionately enforced. (2) The reduction in the size of the pupil, which in turn lessens the size of the circles of diffusion. These same reasons explain why, in cases of high hyperopia, small objects can be seen better, or fine type read nearer the eye than at some distance from it, thus resembling a myopic condition."

Landolt called attention to the fact, that in testing accommodation, the observer can much more easily read the Prince's rule 20 to 50 cm. from the eye than 5 to 10 cm. This is a very practical suggestion for the reason

*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 5, 1925.

that from 20 to 50 cm. represents a difference of three diopters, while the difference between 5 and 10 cm. represents 10 diopters. In other words, an error of measurement of 1 cm. at 33 cm. means less than ¼ diopters but an error of 1 cm. at 7 cm. represents over 2 diopters.

My formulas for the estimation of the normal reserve accommodation are based upon the three following assumptions: First, an old familiar rule for the correction of presbyopia is that for certain ages a definite add for near can usually be given. To be specific, Thorington is quoted: "For a working, reading, writing, or sewing distance of 33 cm. (13 in.), the writer makes it a rule to add to the distance-correction at 45 years of age a +1 sphere; at 50 years of age, a +2 sphere; at 55 years of age, a +2.50 sphere; and for 60 years or more, a +3 sphere." Now it is assumed that the above mentioned adds, represent the average add for the particular age and this will hereafter be designated as the *average add;* second, the mean total accommodation given by Duane for these ages is correct, and third, it is assumed that a patient requires the same amount of normal reserve accommodation, while working at from 28 to 50 cm. that he does at 33 cm.

TABLE A.

1. Age	40	45	50	55	60	70
2. Mean accommodation	5.8	3.6	1.9	1.3	1.2	1.0
3. Average add for 33 cm.	0	1.0	2.0	2.5	3.0	3.0
4. Total amount of refraction	(5.8)	4.6	3.9	3.8	4.2	4.0
5. Less 3 diopters	3.0	3.0	3.0	3.0	3.0	3.0
6. Average reserve at 33 cm.	(2.8)	1.6	0.9	0.8	1.2	1.0
7. Normal reserve	2.4	1.6	1.00	1.00	1.00	1.00
8. 1/3 total accommodation	1.9	1.2	0.6	0.4	0.4	0.3

The ages mentioned by Thorington, and also that of forty, are given on the top row of Table A, in separate columns. The accommodation as quoted from Duane, is given in each column for the respective ages in the second line. In the third line the "Average Add" is placed in the proper columns. The addition of the accommodation and average add forms the fourth line. A "3" is placed in each column on the fifth line to represent the diopters of refraction at 33 cm. The fifth is subtracted from the fourth line, giving in the sixth line what I shall tentatively designate as the average reserve accommodation. The seventh line gives the normal reserve accommodation figured from my formulas. It closely approximates the average reserve accommodation in the line above. The eighth line is added merely to demonstrate that the rule of reserving one-third of the accommodation is not so practical.

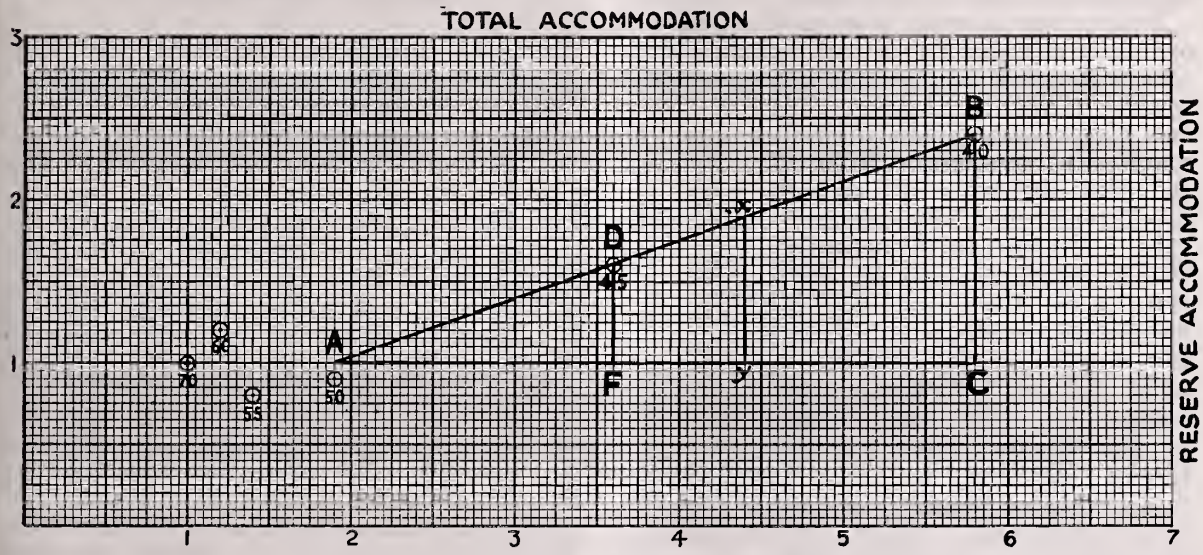

TABLE B

Scale: One small square equals 5/100 of a diopter.

The circles marked 45, 50, 55, 60 and 70 show the basic average reserve accommodation at each respective age.

That for a total accommodation of 1.00 or less, the average add for near (33 cm.) work is a plus 3.00, can be inferred from the fact that for patients of 70 years and older, a 3.00 is the average add. A total accommodation of 1.00 gives a total refraction of 3.00 (the average add) +1.00=4.00. Now 4.00—3.00 (the refraction at 33 cm.) =1.00, the average reserve of the total accommodation of 1.00. By similar reasoning, when the total accommodation is any amount less than 1.00, as .50 diopter, then the total refraction will be 3.00+.50=3.50. In this case, 3.50—3.00 (the refraction at 33 cm.) =.50, the average reserve of a total accommodation of .50 diopter. Hence it can be concluded that when the total accommodation is 1.00 or less,

the total accommodation is always equal to the average or normal reserve, which is the first formula.

From the above described average accommodation and the relations of this to Duane's total accommodation figures for the respective ages, I derived the second and third formulas. Table B was constructed of coördinates, using the total accommodation as the abscissas, and the average reserve accommodation as the ordinates.

It is to be observed that each of the four ordinates representing a total accommodation of 1.9 diopters and less, has a reserve of about 1 diopter. This one diopter represents approximately the average (0.975) of the four ordinates of reserve accommodation. The man with only 1 diopter total accommodation seems to need as much reserve as the one with 1.9 diopters accommodation. Hence, for a total accommodation of from 1.0 to 1.9, the normal reserve accommodation is equal to 1.0 diopter, which is the second formula.

The third formula is a little more complicated. Point A is determined in one direction as 1 diopter and in the other direction as 1.9 diopters, as in the previous paragraph. That is, this point represents the normal reserve as agreed upon in the second formula. The other fixed point, D, is determined by the average reserve and total accommodation at 45 years. A straight line drawn through these two points crosses the 5.8 ordinates at B. In this manner the right triangle ABC is determined, the base and perpendicular of which represent known measurements.

The length of BC is found by proportion, since ADF and ABC are similar triangles. AF:AC::DF:BC, hence

$$BC=\frac{AC\times DF}{AF}$$

The lines AC, DF and AF represent known measurements. Substituting these terms

$$BC=\frac{3.9\times 0.6}{1.7}=1.376,$$

which places B at the same coördinates in the graph.

On the theory that line AB+1 diopter represents the normal reserve accommodation of a total accommodation of from 1.9 to 5.8, it is easy to construct a formula that will give the normal reserve, accommodation between the two points, A and B, as any perpendicular XY+1, since AXY and ABC are similar triangles. Hence the proportion, XY:BC::AY:AC. In this case

$$XY=\frac{BC\times AY}{AC}$$

or substituting the terms with diopters as

$$\frac{1.376\ (\text{total accommodation}—1.9}{3.9}$$

which equals (total accommodation—1.9) 0.353. This approximately equals

$$\frac{(\text{total accommodation}—2)}{3}$$

Hence 1+(total accommodation—1.9) 0.353 is the normal reserve for a total accommodation between 1.9 and 5.8 D, which is the third formula.

TABLE C.

PRESBYOPTIC STANDARD ADD TABLE

Based on original formulas for normal reserve accommodation.

Total acc.	Nearest Age	Reserve acc.	Available acc.	50.0 cm.	44.4 cm.	40.0 cm.	36.3 cm.	33.3 cm.	30.8 cm.	28.5 cm.
4.50	43	1.92	2.58				.17	.42	.67	.92
4.25		1.83	2.42			.08	.33	.58	.83	1.08
4.00	44	1.74	2.26			.24	.49	.74	.99	1.24
3.75		1.65	2.10		.15	.40	.65	.90	1.15	1.40
3.50	45	1.56	1.94	.06	.31	.56	.81	1.06	1.31	1.56
3.25		1.48	1.77	.23	.48	.73	.98	1.23	1.48	1.73
3.00	46	1.39	1.61	.39	.64	.89	1.14	1.39	1.64	1.89
2.75	47	1.30	1.45	.55	.80	1.05	1.30	1.55	1.80	2.05
2.50		1.21	1.29	.71	.96	1.21	1.46	1.71	1.96	2.21
2.25	48	1.12	1.13	.87	1.12	1.37	1.62	1.87	2.12	2.37
2.00	49	1.03	.97	1.03	1.28	1.53	1.78	2.03	2.28	2.53
1.75	51	1.00	.75	1.25	1.50	1.75	2.00	2.25	2.50	2.75
1.50	52	1.00	.50	1.50	1.75	2.00	2.25	2.50	2.75	3.00
1.25	60	1.00	.25	1.75	2.00	2.25	2.50	2.75	3.00	3.25
1.00	64	1.00	00	2.00	2.25	2.50	2.75	3.00	3.25	3.50

The available accommodation is obtained by subtracting the normal reserve, *per formulae*, from the total accommodation. By the standard add is meant the working distance, expressed in diopters, minus the available accommodation. From these two principles, and in accordance with the third assumption, Table C was constructed. It is hoped that this table will be found convenient for the purpose of avoiding some otherwise necessary calculations in the refraction of presbyopes.

It is not within the province of this paper to decide the distance at which the patient can most comfortably do near work. This depends upon other factors as well as reserve accommodation; *e. g.*, convergence insufficiency, acuity of vision, binocular or monocular vision, character of near work, etc. Let the ophthalmologist first decide the proper distance at which the patient must do his near work, and then with these formulas or the above table, calculate the necessary add for this distance, and the patient will have normal reserve accommodation. If it is intended to stimulate or relax convergence at the determined working distance, then give an add that will make the patient use more or less, respectively, of his reserve accom-

modation than is indicated as the normal reserve accommodation.

The following two cases are cited to illustrate the use of the table or formulas:

CASE REPORTS.

Case No. 1.—Mrs. C. McD., aged 38 years, a housewife, suffered from premature presbyopia. Examination showed: O. D. vision 6/9, 1.50 acc., ½ diopter exophoria at 6 m., 2+ exophoria at 33 cm. O. S. vision 6/9, 2.00 acc., no hyperphoria at 6 m. and 33 cm. C. P. P.=8 cm. Cycloplegic refraction showed O. D.+.50 sphere=6/7.5; O. S. .50+.12×180 6/7.5.

She does most of her near work at 40 cm. Take 1.75 to represent her accommodation in each eye, then by using the table with 1.75 in the left column and 40 cm. above the single line, 1.75 is indicated as the standard add. O. D.+.50 sphere, add 1.75 for near; O. S.+.50 sphere+.12 cyl. X 180, add 1.75 for near.

She was given the following prescription: O. D.+ 2.25 sphere; O. S+2.25 sphere +.12 cyl × 180. Tilt and center for near use only.

Case No. 2.—Mrs. D .V. H., aged 44 years, a seamstress, showed convergence insufficiency with presbyopia. Examination showed: O. D. vision 6/9, ½ diopter exophoria at 6 m., 7 diopters exophoria at 33 cm. C. P. P.=14 cm. O. S. vision 6/12, no hyperphoria at 6 m., and 33 cm. Manifest refraction. O. D.+.50+.62×180=6/6-1, 2.25 cc.; O. S. +.75+.50×180=6/6-2, 2.00 acc. Let 2.00 diopters represent the accommodation in each eye, then to the full prescription add 1.50 for near, bifocals.

She must do her near work at 33 cm. and 36 cm. With 2.00 diopters accommodation, at 36 cm. the table indicates an add of 1.78 and would leave her a normal reserve of 1.03 diopters. By giving her an add of 1.50, she must use .25 diopter of her normal reserve, while working at 36 cm. If she works at 33 cm., she must use .50 diopter of her normal reserve, which she can do for short periods of time. In this manner her convergence is temporarily stimulated, as in threading a needle.

SUMMARY.

1. Certain controls are emphasized for the accurate determination of total accommodation: (a) A test object of two parallel lines similar to Duane's "accommodation line," is moved away from the eye; (b) moving printed letters or words away from the eye as used by Donders; (c) always testing at approximately 33 cm.

2. In presbyopia, the relation of the total accommodation to the normal reserve accommodation can be expressed in diopters as follows: (a) When 1.0 or less, the normal reserve is equal to the total accommodation; (b) when from 1.0 to 1.9, the normal reserve is equal to 1.0; (c) when over 1.9, the normal reserve is equal to 1.0+ (total accommodation—1.9) 0.353.

3. A table is given, based upon the above formulas gives the standard add for near in accommodation from 1.0 to 4.50 diopters and for working distances from 50 to 28.5 cm., with the quarter diopter as the unit. When the total accommodation is less than 1.0, the same add is indicated as for 1.0 diopter.

CONCLUSIONS.

The normal reserve accommodation estimated by the formulas, or the standard add found in the table, each furnish a norm that can be intelligently varied in the near correction of certain anomalies such as convergence insufficiency, unequal accommodation, etc. The table is also convenient in saving calculations in the refraction of most cases of presbyopia.

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3. Landolt: Refraction and Accommodation of the Eye, 1886, p. 276.
4. Thorington: Refraction of the Human Eye, Etc., 1916, p. 367.
5. Donders: Accommodation and Refraction of the Eye, 1864, p. 33.

ABSTRACT OF DISCUSSION.

Dr. F. H. Newton, Dallas: I wish to congratulate the essayist on the thoroughness of his study, on his willingness really to dig down into the details of refraction, and on his mathematical ingenuity in devising the formula which he presents. It is certainly a big step forward when we get away from the old custom of prescribing for our presbyopes according to their age and make our calculations dependent upon a determination of the individual patient's total and reserve accommodation. The doctor has outlined for us a very careful method of determining the total accommodation. Prescribing glasses for presbyopia is often a difficult problem despite the tendency of both patient and doctor to minimize its importance.

I feel that this "Standard Presbyopic Add Table" should be of value in approximating the addition to be used for any individual case. But, unfortunately, it must be only an approximation, although I do feel that it represents a more accurate and scientific approximation than the older methods yielded. However, we must realize that each presbyope is an individual case. Patients with the same total accommodation will vary decidedly as to the amount of reserve accommodation necessary for comfort. And, after all, comfort and usefulness, as well as clear vision, must be our aim. Just as young hyperopes vary very much in regard to the amount of reserve accommodation necessary for comfort, so we may expect presbyopes to vary in like manner. The dictum of Fuchs that the addition for reading should be the minimum strength commensurate with clear vision holds almost universally.

In general, the glass which will give the greatest possible range of vision with point of maximum clearness at 40 cm., or more, will be the most comfortable and useful glass one can prescribe. I know that in presbyopia the mistake is often made of sacrificing comfort and range of vision to extreme clearness. In making the first correction for presbyopia, it is always advisable, if possible, to give the patient repeated reading lessons in the office, in order to determine the most comfortable and useful glass. There is no rule or table which we can definitely follow.

Dr. W. C. Finnoff, Denver: The accommodation should be estimated in every complete refraction. No refraction is complete unless this viewpoint is determined. The number of oculists who estimate refraction without this determination, is appalling.

Apparently, they do not realize that this determination is of the greatest possible value in quickly determining the refractive error. I have not used this formula, but have allowed always a certain amount for accommodation. The only objection I find is the addition of another term of the nomenclature, although this is not a serious objection. In determining the accommodation, we cannot call such a rule of thumb as Thorington and Duane use, accurate. We find wide variations in the accommodation at the same age; this must be taken into account in the addition which is placed on the distance correction. We cannot follow Thorington's rule. Duane feels that the single line is of value, and I agree, if one has time to explain to the patient that two lines are advocated by the essayists to give advantage over the single line as used by Duane. The reduced test type is an advantage because you can determine the blurring point. I think the important thing is to bring the subject before you and to emphasize the importance of taking the near point in every case of refraction, regardless of the age of the patient. Both eyes should be tested separately.

Dr. J. M. Robison, Houston: The patients I have had most trouble with, have been the ones who have been corrected for distance and presbyopia and have had their accommodation so relaxed that convergence caused trouble. Some patients I have been unable to relieve. The author spoke of the comfort of prebyopes wearing glasses. Very often the insufficiency of convergence is the explanation of the comfort they have at 40 to 50 cm.

CONFERENCE ON BREAST CARCINOMA.*

BY

I. WARNER JENKINS, M. D.,
WACO, TEXAS.

The Section on Radiology and Physiotherapy expects to present the breast cancer problem from three viewpoints, that of the internist, that of the surgeon, and that of the radiologist. You are here, expecting to hear something new that may add a little to your knowledge on cancer of the breast, that will send you back home better doctors to do better work for those who entrust their lives to your care. If the inspiration gained in this meeting will cause each of you to save one life from the cancer menace, and by your advice to lengthen the lives of others, this will indeed be a gathering for good. The general practitioners are more eager and anxious students and thirst more for new knowledge concerning breast cancer than do the specialists. They should be authorities in the diagnosis and management of cancer, for it is they who see the victim for the first and last time. It is they who have a chance to advise the woman what to do. It is they who should know exactly the right step to take and when to take it. It is they who say whether the case should have surgery or radiotherapy, or both, and who are not expected to get into a narrow rut, and become hide-bound and go to seed in one certain line. It is the criticism of the general practitioner of medicine that takes the mercenary and jealous personalities out of the surgeon or radiologist, as no other person can do.

When you return home to your practice, and refer a case to your surgeon or radiologist, and he only considers the case from the viewpoint of his own specialty, without respect or regard for the other, he will be a good man for you to place in the discard. If your surgeon undertakes a case of breast cancer with the knife alone, without due consideration being given to all other physical agencies, namely radiology, drugs (per orum and intravenously), diet, therapy and hygiene, he is a good man to place on the shelf. When you take a case or two from him and turn them over to some other surgeon who is willing to invoke the aid of all the powers that be in behalf of the sufferer, he will soon get a change of heart and say to you that he, too, is convinced that no single agency should be relied upon for a cancer cure. He will give you to understand that to get the greatest number of cures, the patient should have a combination of agencies brought to bear. If you find a radiologist who would advise you to allow him to undertake the treatment of a small lump in the breast when there is no enlargement of the axillary lymph nodes, his name also is eligible for your list of "unreliables."

It is for you, Mr. General Practitioner, that this symposium has been arranged, and we hope that you may correlate what is said in such a way that this meeting will be well worth the time spent here. It is our desire that you may get the idea from these papers and discussions that no one agency alone is dependable in dealing with cancer of the breast, and to rightly understand and treat the systemic condition belonging to cancer, which is believed by many to be its basic factor, one needs to take a very broad view of the complex process which pertains to metabolism and nutrition. I can see how a deranged, disturbed, or perverted nutrition is the bottom fact of all erroneous growth, whether it be obesity, rickets or cancer.

If, however, the surgeon and internist become insistent that their methods are those of choice, and the only ones to be considered, I admonish you, in the language of the Nazarene, "Forgive them, for they know not what they do." There are cases of breast cancer operated every day that should not be, for there are already lung metastases. This information can be better gained by x-ray examination, than by any other method. It is a lamentable fact that there are only a small percentage of these cases subjected to

*Address of the conductor of conference on Breast Cancer, read before the Section on Radiology and Physiotherapy of the State Medical Association of Texas, Austin, May 6, 1925.

Röentgen-ray examination before operation. Why should these patients be subjected to breast amputation when the lung is already affected by cancer tissue? There are clinics and medical centers in Texas that have almost 100 per cent of their breast cancers, as well as all other forms of cancer, subjected to *x*-ray treatment, and there are other localities that have not more than 10 per cent of their cases subjected to medical, hygienic, or *x*-ray treatment.

Whatever may be the cause of cancer, we have good reason to believe that one etiological factor may be a metabolic imbalance. If a patient has cancer and is cured by the internist or specialist; if this patient continues in the same path as previously, and if the same metabolic imbalance be allowed to function as before, there is every reason to believe that certain cells could again turn parasitic in function and cause a cancer to reform; perhaps, in one year or in twenty years. The man who operates you or radiates you and quits at that, and says that he does not believe in surgery or in *x*-ray, as the case may be, and that your habits and the food you eat have no effect on cancer, is a dangerous person.

Since the exercise and food we take determine, to a large extent, the state of one's health, one's metabolic balance or imbalance, and since disharmony or disease is caused by disturbed metabolism, and since there are so many varieties of this disturbance, why should we doubt for a moment that the thing that led up to cancer in the first place, might have started as a metabolic disturbance in the long ago, and that whatever produced it at first, might produce it again.

The spectacular results along many lines of surgery have created such an obscession in everyone's mind, that they have forgotten all else but the scalpel and place all hope in it, thinking that when it fails, all is lost. We forget that we are dealing with a complex protoplasm, one which reacts to food, light, exercise, oxygen and rest. The disharmony caused by an improper proportion between these five cardinal agencies is, perhaps, the force that sets some of our cells on the warpath, with an intent to destroy us. If we are really in earnest about treating cancer, why then do we not try to treat it as nature intended that we should. It is from this path that man has turned through the manifold temptations incident to an artificial existence.

We hope that after leaving this conference you can say that this man or that man is a safe person to consult concerning mammary disturbances, and that this surgeon or that radiologist should be relegated to the forgotten past as being so prejudiced that he cannot see beyond his own specialty. A prophet has said, "Man cannot live by bread alone," so we, as radiologists, internists and surgeons, should say, "The cancer problem cannot be solved by one method alone."

CANCER OF THE BREAST, FROM THE INTERNIST'S STANDPOINT.*

BY

S. ROSS JONES, Ph. B., M. D.
WACO, TEXAS.

In the light of modern research the internist cannot afford to longer be content to look upon this condition as a local affair and send the patient immediately to the surgeon, thereby relieving himself of further responsibility. Rather he must realize that it is but a danger signal of a general constitutional disturbance that in 90 per cent of cases proves so insidious and deadly.

The surgeon has been wide awake on this subject for many years, and such men as Handley and Halsted have contributed much in the way of surgical technique, thereby saving many lives by surgery alone. But surgery is wholly inadequate to deal with this malady that is stalking abroad among civilized man, since statistics show that deaths from cancer have increased 30 per cent in the last twenty years in spite of all that surgery has been able to do.

Just a few years ago tuberculosis threatened the race with extermination, but now the death rate from this cause has decreased about 30 per cent in the last twenty years. On the other hand, cancer mortality has increased about 30 per cent in the same period of time throughout the civilized world. What surgeon would today regard tuberculous foci as just local conditions, or would be content to lance an abscess of this origin or curette the bone and shut his eyes to the general constitutional nature of the disease.

Is it not high time for the physician or internist to take stock of his knowledge of metabolism, diet, hygiene, endocrinology, and even of drugs, in preventing and curing this disease? Cancer, like tuberculosis, is a disease of civilized man. Many physicians who have practiced in such countries as India, China, Africa and Australia, unanimously report that cancer is practically unknown among the uncivilized tribes until they live as does the white race, or become civilized, when they also show a high mortality from cancer. It is true that we do not know the specific cause of cancer as we do of tuberculosis, but must we wait for that to begin

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the investigation of general causes and contributory factors? The discovery of the tubercle bacillus has had very little to do with the present successful treatment of this disease, based on early diagnosis, proper diet and hygienic measures, and in some cases on medication and vaccine therapy also.

Now when we consider that the mortality from tuberculosis has decreased in the last twenty years by almost the same percentage that the mortality from cancer has increased in the same period of time, are we not justified in assuming that what prevents and cures tuberculosis probably bears an etiological relationship to cancer? Tuberculosis is primarily a disease of early life, usually before the age of 30, while cancer, as a rule, begins after the age of 40. In youth and adolescence, owing to the fact that the metabolic rate is high, more body cells are being built up than torn down, in spite of the great activity and often strenuous exercise that normally characterizes this period of growth.

The body needs a rich diet of meat, milk and eggs. We know that young people who are fortunate enough to have these foods in abundance seldom develop tuberculosis and that in those who do develop it, such a diet is one of the main factors in effecting a cure. The organism is ordinarily capable of metabolizing this diet, rich in proteins, up until maturity, and it is probably essential for proper development. After 30 years of age most people become less active and more sedentary in their habits, but the body is still able to handle a great excess of protein for several years, especially in those cases whose cardiovascular and renal systems remain intact. After the age of 40, however, there is more tissue destruction than before; the process of metabolism has slowed up to some extent, and in most cases the excretory organs are not as active in ridding the economy of poisonous products. After this age foci of infection, such as abscessed teeth and intestinal stasis, as well as the parenchymatous degeneration of such vital organs as the heart, blood vessels, kidneys, etc., occur. Frequently an imbalance takes place between the sympathetic and parasympathetic nervous systems.

Is it not probable that those individuals who continue to eat large amounts of protein as well as excessive quantities of other foods after middle age are more prone to metabolic disturbances and also to cancer? If we go to a lunch counter and observe, we are appalled at the large cuts of steak and roast beef that people, on all sides of us, are eating. We may see men 50 years old eating a steak that would be sufficient for an ordinary family meal. This same man will go back to his office and probably sit there all afternoon and then ride home in his car, taking little or no exercise.

We must also remember that cardiovascular and renal diseases are greatly on the increase, so much so that now heart disease heads the list of causes of death. It seems to be generally conceded that improper diet is one of the main causes of these conditions. We know that the products of protein metabolism, especially when incomplete, act as poisons to the body tissues and in some instances seem to irritate the parenchymatous cells, and even to destroy them, with the consequent replacement of fibrous tissue as in arteriosclerosis.

We all know from experience in cleaning our hypodermic needles and blood pipettes, that ether, owing to its low viscosity, passes through the fine channel with much less pressure on the piston than does water, and that it requires much stronger pressure on the piston of a hypodermic syringe to force oil through the needle than it does water, owing to the greater viscosity of the oil. Then is it not reasonable to suppose that an excessive diet, especially one rich in protein, increases the viscosity of the blood, thereby throwing more work on the heart and raising the blood-pressure in order to pump this viscid, thick fluid through the arteries and small capillaries? Would not this tend to slow up the circulation of the blood and to that extent interfere with the oxidation of the tissues?

Statistics from England show that the consumption of butcher's meat had risen to 130 pounds per capita among the poor classes, and as much as 330 pounds per capita per year among the wealthy classes, in addition to large quantities of fish, game, rabbits, poultry, eggs and cheese. This is more than twice the amount consumed fifty years ago and during this time cancer has increased fourfold. Bulkley, in his book on "Cancer and Its Nonsurgical Treatment," shows by statistics that the increase of cancer goes hand in hand with the increase of per capita consumption of meat in several of the civilized countries. In countries such as Italy, that consume relatively small quantities of meat, the incidence of cancer is low. On the other hand, in uncivilized countries where the inhabitants are mostly vegetarians, cancer is almost unknown.

The surgeon will tell you that cancer in its incipiency is merely a local affair, and that if it were possible to detect it then that he could remove all the dangerous tissue on the point of a needle and that the patient would probably never be troubled again. In my opinion, it would be just as sensible for a

tuberculosis specialist to tell you that in its incipiency he could do the same thing in a case of tuberculosis and utterly disregard diet, hygiene, medication, and other means of combatting this disease, too well known to enumerate.

The literature is literally teeming with reports from the most eminent surgeons, showing the inadequacy of surgery, in combatting this disease. John B. Murphy states on the basis of end results, that the plump woman invariably succumbs to cancer of the breast, and that Padgett's disease ends fatally in 90 per cent of cases. Many prominent surgeons of the past, as Walshe in 1815, and Abernathy in 1816, made numerous references to the constitutional nature of cancer. Lambe also, in 1815, wrote clearly in regard to the causation of cancer from luxurious living. Sir Astley Cooper, in 1825, said, "The cause of cancer of the breast is supposed to be some accidental blow or pressure of the clothes, but although the blow may produce a swelling on the bosom, yet that swelling will not be of a scirrhous nature unless some defective state of the constitution disposes to malignant action. If the constitution be good, the effects of the blow are speedily dissipated, but if the constitution be faulty the swelling grows into a formidable disease." In 1854, Sir James Padgett, that prince of surgeons and pathologists, said, in his lecture on surgical pathology, that cancers are local manifestations of specific morbid states of the blood. Again he says, "I believe it to be constitutional in the sense of having its origin and chief support in the blood. The existence of this morbid material in the blood, whether in the rudimental or effective state, constitutes the general predisposition to cancer." There are others too numerous to mention, who make similar statements.

The internist should no longer allow the glamour of surgery which has failed so ingloriously and woefully in the past two decades, to blind him in his duty to his patient. He must realize that great responsibility rests on him and not consider his task ended when he so meekly refers his case to the surgeon.

Bulkley, in his masterly work on cancer and its nonsurgical treatment, gives case history after case history of inoperable cancer of the breast as well as postoperative cases where he has been enabled by regulation of diet, medicinal treatment and hygienic measures to relieve almost all pain without the use of morphia, which drug he condemns in the severest terms in this disease, and in many cases has effected permanent cures. He prescribes a very strict diet for his patients, placing especial emphasis on reducing the protein and nitrogenous foods to a minimum. He also has his patients to save all pot liquor in which vegetables have been cooked from day to day and eat as soup. This contains the vitamins and mineral salts so essential to health. For further details of his treatment, I refer you to his book.

In conclusion, I feel that it is the duty of the internist to see and consider his patient as an individual and not simply as a breast or a cervix or a stomach, or whatever organ may be affected by the cancer. Cancer may be, and probably is, caused by a germ, but we must realize that there is something fundamentally and constitutionally wrong with the vital processes of this individual, and by applying our knowledge of metabolism, physiology, dietetics, therapeutics, etc., we must attempt to correct these abnormal conditions.

Undoubtedly, in early cases cancer should be removed surgically as soon as diagnosed, and here is where the real fight of the internist begins in preventing recurrences by regulation of diet, hygienic surroundings and the mode of living in general. We should eradicate as far as possible all foci of infection, intestinal stasis, syphilis and other diseases.

Last but not least, radiology has opened up a new avenue of hope in the treatment of this disease and I do not feel that we have done our full duty to any patient so affected, unless we have had the help and coöperation of a competent radiologist. *X*-ray and radium in competent hands have proven to be very valuable in treating this disease.

THE SURGICAL ASPECT OF CANCER OF THE BREAST.*

BY

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We have no inclination to question or criticise the fixed opinions of those who believe in the so-called established facts concerning cancer of the breast, nor to controvert them on the many phases of the subject still in doubt. We have profound respect and admiration for such men as Virchow, the founder of cellular pathology; for Waldeyer, who proved the epithelial tissue cell origin of carcinoma, and for such surgeons as Halsted, Rodman, A. C. Scott and others, who have made original, distinctive and timely advancements in the surgery of malignancy of the breast. While some of our ideas and deductions are at variance with the established theories of many of our most brilliant thinkers, who might be classed as "Fundamentalists" and perhaps too radical for con-

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servative research workers who are making great progress slowly, we trust to their liberality to concede to us the candor and honesty of thought which we respectfully attribute to them.

Fully realizing the great importance of the subject under discussion and truly appreciative of the responsibility assumed in presenting a paper of this kind, we have carefully weighed every word and thoughtfully considered every proposition set forth, with the sole purpose of adding suggestions for constructive thought.

To read a paper before this Association, dealing only with the early diagnosis and operation and stressing what is generally considered adequate surgical technique for cancer of the breast would indeed be like "bringing coals to Newcastle." Those phases of our subject have been discussed with increasing emphasis for many years. Many of us have for more than a quarter of a century read in medical books and journals, and heard read before medical and surgical societies, many splendid papers dealing with the surgical treatment of cancer of the breast. Nearly all of these, after the preliminary statement that (1) the primary cause of cancer is not known, (2) that in the beginning it is a local disease, (3) that at some stage during its development it undergoes metastasis, and (4) that if operated early a certain percentage of cases may be cured, have begun their main argument with a plea for early diagnosis and operation and have concluded with some advanced suggestion for improvement of surgical technique. Yet reliable statistics are available which show conclusively that the death rate from cancer of the breast, along with that from cancer of other portions of the body, is gradually on the increase.

Despite the fact that a very intensive and extensive campaign of popular education has been waged by organized medicine and allied workers as to the early symptoms and phenomena of cancer of the breast and the further fact that an earnest plea has been broadcasted all over the world for early surgical treatment, but little real progress has been made. It must be admitted by all candid observers that surgery of malignant tumors of the breast, unaided by other measures, is inadequate, disappointing, and, to a regrettable degree problematical.

The past half a century, the "Rennaissance of surgery," has only added to the surgery of carcinoma of the breast the refinements of aseptic technique, the precision of modern instrumentation, the benefits of hospitalization, and the advantages of better anatomical and pathological knowledge. These advances would appear all sufficient, having placed the surgery of almost all other conditions, except cancer, upon a high plane of efficiency. We believe that a correlation of our present knowledge concerning the physiological, pathological, chemical and metabolic actions of the human body, combined with such aids as the *x*-ray and radium, together with a clearer insight into the nature of cancer, will give better results and *is* giving better results to those who make use of all of this information.

We believe that there are certain adjunctive features of the problems involved in the surgical treatment of breast cancer that should be more thoughtfully and generously dealt with, and that preliminary and after treatment should be given more consideration.

We have believed for many years that the only adequate treatment for cancer after metastasis, must be directed through the blood-stream, for it is generally admitted that merely to remove a tumor after metastasis does not permanently cure the patient. Believing that, whatever the exciting cause of cancer may be, it spreads through the blood-stream and not through the lymphatic circulation, it appears reasonable to direct the fight on the spread of the disease through the blood-stream, or by the intravenous use of some agent, if there be such, capable of destroying infected cells or of inhibiting their growth and reproduction. Also, it appears reasonable that some agent with tonic properties used intravenously to increase vital forces, to aid metabolism and to increase phagocytosis, would be beneficial and materially add to the efficiency of surgery. Whatever may be the cause of cancer, it probably remains dormant for many years until altered metabolism permits its development to the stages where it is recognized clinically. We will refer to this phase of the subject again.

Noting that patients with malignant tumors of the breast, applying for surgical treatment, are generally bad surgical risks, with marked evidence of chronic poisoning, altered metabolism, vitamin starvation, devitalized body tissues and reduced opsonins, (this is especially true if the patient has reached the so-called stage of metastasis), it appears that something could and ought to be done to better prepare these patients for surgery. With this purpose in view it has been my practice for the past few years to endeavor to keep my cancer cases under observation for a period before operation and to carry out certain measures of diet, therapeutics and rest before operating upon them. Attention is given to their liver and kidney function. A diet rich in vitamins is prescribed, the intes-

tinal flora is changed, the tissue fluids are alkalinized, and every effort is made to overcome constipation or intestinal stasis. If not contraindicated by nephritis, six-tenths of a gram of neoarsphenamine is given, intravenously, at three-day intervals, for three or four doses. This is given without any reference to the Wassermann reaction, for its tonic effect and empirically for its specific effect. The last dose is given a few days before the time set for the operation. Following the second dose, the patient is turned over to the röentgenologist for *x*-ray treatment over the breast and affected areas. This latter is the business of a trained specialist experienced in this particular line of work. When the patient is prepared, we remove the breast, following as far as we are able, the technique of our best surgeons, and planning the incision and extending the field of operation to suit each individual case. We employ both scalpel and cautery. I am not quite convinced that the cautery or radio knife should supplant the scalpel in breast amputations. In extensive dissections with the cautery there are certain toxins from the area of burned tissue which are certainly not without danger.

The postoperative treatment of a patient operated for removal of a malignant tumor of the breast, should continue as long as the patient lives. As soon as the wound has healed, the patient is again turned over to the radiologist for a series of deep exposures, each treatment being followed the day after by three-tenths of a gram of neoarsphenamine, intravenously. The patient is requested to return in three months for a similar course of treatment, at which time a most careful examination is made, both clinical and laboratory. She is given a diet list with vegetables and fruits predominating, and hygienic instruction is given. In other words, we try to tell the patient how to live a normal and healthful life, assuring her that as long as she keeps her physical condition at par that her cancer will not return. If this statement is not literally true, it gives the patient encouragement to fight her own battle against recurrence of her cancer. We leave it to the radiologist to give the details of the pre- and postoperative treatments. We assert our belief in the advantages of this. The other adjunctive measures are of decided benefit, all of which we are prepared to prove by case records. My first case of carcinoma of the breast, diagnosed clinically, and the diagnosis verified by pathological examination, was operated after the manner of Halsted. This patient died twenty-one years later from carcinoma of the liver. Her decline in general health followed an attack of influenza of the gastro-intestinal type. Within one year after attack of "flu" she came to the hospital with an advanced case of carcinoma of the liver, later extending to the lungs. The diagnosis was established by exploratory operation, tissue examination and the *x*-ray. Perhaps there are those who will contend that this was not a recurrence. There is no way of proving that it was or that it was not. We contend that cancer is a very slowly developing disease, requiring five, ten, twenty or even thirty years for its clinical manifestations after the initial infection or beginning, if you prefer to use the latter term. In the case just cited, I have no doubt but that the cancer germs, or cells, if you please, remained dormant in my patient for twenty years following her breast amputation, and that had she remained in good health she might have escaped a cancer death.

The very fact that cancer is so slow in its development, contrary to the rule followed in most all other infections, would suggest that the tissues of cancer patients have the power of developing their own serum or antitoxin against the infection. In that way they are able to postpone the terminal stages of the disease, *i. e.*, tumor formation, toxemia, metastasis and general carcinomatosis, until general impairment of health incident to advancing age or disease lowers vital resistance and disturbs normal metabolism.

We do not say that cancer is caused by some type of microörganism, but we believe that it is. We have no quarrel with those who believe that cancer originates in epithelial cells, for we know that many other infections have a special affinity or predilection to certain tissue cells. We hold with those who believe that carcimona develops by endogenous reproduction from embryonal cells of the same type and kind. We are sure that carcinomatous tumors grow from proliferation of infected or impaired embryonal epithelial cells. We admit that these cells are running wild, reproducing themselves by indirect division and changing into a multitude of forms, yet retaining their identity and their faculty of reproduction.

When a small boy, we remember asking an old hunter the question, "What makes the wildcat wild?" His reply was "It's his nature, boy, just his nature." That is about all the embryologist and the pathologist have been able to tell us about this untamed embryonal epithelial cell. If we prefer to think that cancer is due to some kind of microparasite and to treat it on that basis, we insist that our treatment is no more empiric than if it was based upon any other theory, for it is generally admitted that no one knows the true etiology of cancer.

The life of a cell is short and its progeny innumerable during the life of an individual, so we reason that there must be something more than the infected or impaired cell to bring about the development of cancer to the stages of tumor formation, metastasis, etc. This additional influence we believe is altered metabolism.

We believe that cancer is caused by some germ which selects young epithelial cells, preventing the normal growth of such cells, but not changing their inherent power of reproduction, common to all cells, and that rapid growth or so-called cell proliferation, occurs when certain slowly developing changes take place in metabolism. This theory will account for the slow development of cancer, a fact which we believe is generally admitted.

We know that other infections may remain dormant in the system many months and sometimes many years before terminal manifestations. We know that it is many years, often, from the chancre to the gumma. We believe that many years may intervene between the initial infection and the tumor formation in cancer and that during these years something ought to be done to prevent the terminal syndrome of that dreadful disease. Apparently we are neglecting a vast and productive field of preventive medicine. We may never be able to prevent persons from becoming infected with cancer, at least, not until we can prevent contact with cancer carriers, but it is reasonable that we can do much to prevent cancer from developing to its terminal stages in those who may become infected. The world was dumfounded when Cole announced, as a result of his *x*-ray investigations, that 95 per cent of persons reaching adult life were infected with tuberculosis. I have no doubt that an equal number of persons reaching middle life are affected with cancer.

Metchnikoff, the successor of Pasteur, emphasized what every close scientific observer has known for ages, that "The essence of immunity lies in the living tissues of the body." If this were not true, the human race would long ago have perished from infectious diseases. Then why not make use of this general knowledge for the prevention and cure of cancer? We believe that our final victory over this disease will come along the lines of prevention, first, of its cause, and, second, of its development after the cell has become infected. The question now presenting is "Shall we content ourselves with fighting the cancer, or shall we help the patient fight his own cancer?" In other words, shall we continue to direct our forces against the tumor, the fortified stronghold of cancer, or shall we attack the cell? We can remember when we fought flies by catching and killing them instead of destroying their breeding places and screening against them. And so it is with cancer. We have been attacking cancer with knife, cautery and *x*-ray after it is well established, and we have been waging a losing fight.

The age-long cry of the surgeon has been, "I was called too late." The small, nonpainful lump in the breast is thoughtlessly passed by as being too insignificant for surgery and too symptomless for medical attention, until the classical symptoms of cancer appear. We hear the doctor say, "Wait awhile." We hear the surgeon say, "Too late." Will popular education remedy this? Certainly not, with our present state of knowledge concerning the etiology and nature of cancer. No physician, surgeon, pathologist or technician knows the beginning of cancer. When a tumor is discovered in the breast there is no one to say with any degree of certainty that it is benign today, but will be malignant tomorrow, or that it will be malignant a year from now; or that it is malignant today, but was benign yesterday, or a year ago. Nor can they say just what per cent of breast tumors, if left alone, will eventually become malignant. Calm deliberation would incline one to the belief that all tumors of the breast which are found malignant were so from the beginning. We try to teach the public that the lump in the breast, however small and symptomless, may eventually become malignant. It would be better to assume that they are all malignant and so teach the public, and also that the exciting cause lies far back of the tumor.

If no one knows the origin of cancer, that is, the time and manner of infection, the period of incubation or latent existence and the beginning of malignant tumor growth, certainly no one knows the onset of what is commonly termed metastasis. The conclusion to base operability and prognosis upon the manifest phenomena of metastasis is purely empirical and has been handed down from antiquity. Democedes (520 B. C.) cured by radical operation, selected cases of cancer of the breast. What surgeon of today will promise a cure when metastasis has spread beyond his field of operation? Or what surgeon will risk his reputation by asserting permanent cure after malignancy has been demonstrated in the breast tumor he has removed? Why all this uncertainty when surgery has had its final say?

Can no one extend the hand of hope of permanent cure to those who have submitted to the risk of life, and to the discomfort and disfigurement of radical amputation of the

breast? If from the convention of internist, surgeon, scientist, research worker and pathologist there comes no word of assurance, can we expect the cancer victim to risk all upon ways and means of doubtful efficiency? We can hardly blame cancer patients for trusting cancer quacks and fakers, who so convincingly extend a flowery promise of cure. Perhaps in dealing with the cancer problem we have been too conservative, or perhaps we have been dogmatic. Science has been too prone to assume the pomp and poignancy of papal power in promulgating its bull of excommunication against those whose ideas and theories run counter to its own established facts.

If there are those among us who believe that cancer is caused by some kind of microparasite, their views should be given as much consideration as those who believe that it is caused by something else. Let us hope that we will soon know the true cause of cancer! We will then know how to prevent it to a large degree. We will then know that it is curable. We will then know how to correlate hygienic, dietetic, therapeutic and surgical measures. Then the prognosis will be more certain and assuring.

But with our present knowledge we must more earnestly concern ourselves with the problem of reducing the mortality rate and prolonging the lives of our patients. We are confronted with the solemn and discouraging fact that cancer of the breast is increasing, and that from thirty to forty per cent of cancer deaths among woman are due to this cause. For some reason which we believe to be connected with the manner of living of the present-day woman, we behold what was a few generations ago a strong, happy and healthful race of sweethearts, wives and mothers, fast changing into a class of inert, inactive, impatient and irritable individuals, with constipation and intestinal stasis and with an unmistakable cancer diathesis.

Sir Arbuthnot Lane, in his address on "Reflections on the Evolution of Disease," in 1919, said, "The breast undergoes very typical changes in stasis. It becomes hard and nobby, and after a time a large number of cysts develop in its substance, some of which may assume a considerable size. This change commences, usually, in the upper and outer zone of the left breast; then it occurs in the corresponding portion of the right breast, and later may involve the entire substance of both breasts. These degenerating breasts are liable to be affected with cancer." There is undoubtedly a close relationship between the intestinal tract and the mammary gland, and we believe from observation and study, a very definite connection or association between constipation or intestinal stasis and cancer of the breast. We, therefore, conclude, at the risk of being thought ridiculous and extremely visionary, that it may be prevented by overcoming intestinal stasis and constipation and that it is best treated by correcting these conditions as adjunctive measures to surgery and other established means.

Constipation and intestinal stasis seem to be conditions of modern times, incident to our modern civilization. Cancer is also a disease of civilization, to a large extent. We do not doubt that cancer is spread and propagated by human carriers, and that all cancer patients should be regarded as potential carriers. For ages we have heard of cancer families, cancer houses, cancer communities, cancer cities, and cancer valleys and plains. All of this may be without significance in the incidence of cancer, but to some minds it is at least suggestive.

We would not have you believe, from what we have said, that we discount surgery or that we would discard it in anywise. From our present state of knowledge we believe that all tumors of the breast should be removed surgically as soon as discovered, or as soon as the patient can be gotten in a suitable condition for surgery. We only wish to say that better results may be obtained by following the methods which we have heretofore outlined.

We also believe that recurrence may be prevented or postponed by proper after treatment and care of the patient. The surgeon who merely amputates a breast for carcinoma and turns his patient loose to return to the same manner of living, diet, etc., with instructions to report her progress from time to time, has fallen far short of his duty to both his patient and his profession. Cancer being a very slowly developing disease which may be brought about by some kind of chronic poisoning, and its development certainly favored by vitamin starvation and its accompanying metabolic changes, and finally hastened in its terminal manifestations by constipation and stasis, must be dealt with with due consideration for these conditions, both as to its recurrence and its prevention.

When a patient has had her breast removed she should be taught that persistent and consistent adherence to the doctor's orders is the price she must pay for freedom from recurrence. The surgeon's or doctor's endeavor should be to rid the system, as far as possible, of the infection, after the removal of the tumor, and to build up the vital forces by the best known methods; to build up the blood by a diet rich in vitamines and red blood builders; to overcome constipation and intestinal

stasis, and to discard chemically preserved foods, frozen meats, bleached flour products, refined sugar, adulterated confections and artificially colored cold drinks.

In closing, permit me to pay my respects and present my compliments to the roentgenologist for his splendid contribution to the treatment of cancer. Heretofore, the surgeons have regarded the *x*-ray men and radiologists, in the war on cancer, in the light of cleanup men or shock troops. In other words, we have expected them to, or rather hoped that they would clean up what surgery had left behind, or close in and bear the burden when surgery had failed or was forced to retreat. They have done their work well and are now regarded in the nature of advance troops, preparing the field for surgery and very materially aiding the surgeon and clinician in the great warfare on this dreaded destroyer of human life.

THE RADIOLOGICAL TREATMENT OF CARCINOMA OF THE BREAST.*

BY

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The value of all new methods in the treatment of disease is exaggerated. The early reports from the use of salvarsan were far too flattering. When the first reports of the results of radium were received it was heralded as the last word in the treatment of malignancy; *x*-rays have also gone through this stage of over-enthusiasm, but both are now on a well established basis in the handling of all malignancies. Radiation has a wonderful mission to play in the treatment of malignancies, but its limitations as well as its uses must be well understood.

Neither the over-enthusiast claiming radiation to be a cure-all, nor the ultraconservative contending that it is worthless, have developed this highly specialized method to its present field of usefulness. The present status of radiological treatment is a result of the conservative men seeking only that which is scientifically affective. It has been my observation that the internist and surgeon working alone are not satisfied with their results. They do not think they are sufficient unto themselves and gladly receive assistance from the radiologist. Some of them do not believe in the virtues of radiation in the treatment of breast cancer. This, to my mind, is probably because they have not, for various reasons, seen with their own eyes the actual results of well planned and well executed *x*-ray treatments. The radiologist must know the type, extent and location of the condition he is expected to treat. He must know and carefully calculate the dosage for the individual case, and if it has been properly analyzed from the beginning, the results in the majority of instances can be predicted.

Knowledge of the lymphatic system of the breast is most essential, since most cases of breast cancer metastasize through the lymph stream. The major portion of the lymph from the breast flows to the axillary group and thence to the supraclavicular, beyond which point lymph glands are absent. If the highest glands under the clavicle are involved, it is most probable that cancer cells have passed beyond this point and are, therefore, in the blood stream. Of course, if the patient has a blood-stream carcinomatous infection, none of the agencies at our command can effect a permanent cure. Temporary relief, however, may be expected from the general effects of irradiation. There are also other groups of vessels by which the lymph may pass from the breast. It may pass through the inter-pectoral glands and thence to the clavicular group; it may drain through the skin into the clavicular group, and the vessels may also pierce the chest wall to the internal mammary glands along the costosternal margin. Some of them drain to the opposite breast, while still other vessels pierce the abdominal wall between the seventh rib and the xyphoid process to the extraperitoneal space.

If a malignant process is located in the upper or outer quadrant, heavy radiation should be concentrated over the axillary and clavicular glands. If in the inner quadrant, the heavy dosage should be along the internal mammary artery. If the lesion is in the lower quadrant, as heavy dosage should be delivered as the sensitive upper abdominal organs will permit. Let us bear these anatomical points in mind and concentrate our efforts on the expected route of metastasis, thereby giving the patient the best opportunity to prevent spread of the disease. If these expected routes of metastasis are palpably involved, the disease has progressed much further and is most likely incurable.

The surgeons, themselves, are divided as to the operability of breast cancer. Dr. Burton J. Lee of Memorial Hospital, is of the opinion that surgeons are ill advisedly operating many breast cancers and that any case with involvement of the lymph glands is inoperable. Be that as it may, all cases of "surgical cancer" should have preoperative radiation unless the surgeon can completely excise the lesion without spreading malignant cells locally or encouraging metastasis.

*Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, Austin, May 6, 1925, as a part of the Conference on Breast Carcinoma.

The low percentage of cures by surgery alone would indicate that surgical cure is impossible in most cases. Research has repeatedly demonstrated that the cells of cancer transplants are destroyed in direct ratio to the amount of radiation given. If it is true that the surgeon cannot completely excise the lesion and that radiation prevents growth of transplants, is it not reasonable to suppose that preoperative radiation, operation and postoperative radiation will give better results than either method by itself? This has been the method of handling these cases in our work and all who have observed these cases are convinced that this method is much better than any previously followed.

Radiation, like other traumatic agents, is followed by lymphatic infiltration, fibrosis and hyalinization. The histological structures, which indicate favorable results from radiation are: (1) Embryonal or undifferentiated cells are more sensitive than differentiated or highly specialized cells; (2) cells in the process of mitosis or cell division are eight to fifteen times more sensitive than normal cells; (3) hyperchromatic cells are more vulnerable than cells with a small amount of chromatin; (4) the endothelia of small blood vessels and lymph vessels are easily thrombosed by radiation, and thus the blood supply to the tumor may actually be destroyed; (5) tumor cells with scanty stroma respond more quickly to radiation than those with dense stroma, and (6) actively secreting cells are less stable and more readily destroyed than nonsecreting cells. Thus it is readily seen that careful histological study will greatly assist us in forecasting the results of radiation.

The treatment of advanced carcinoma of the breast is best conducted by radiation alone, except palliative removal of necrotic tissue. Remember that if the highest glands under the clavicle are infiltrated the cells have invaded beyond this area and are in the blood stream and that the disease, in most instances, is incurable. When this condition prevails, you should say to the patient: "Permanent cure is impossible, but proper doses of radiation will prolong your life and add to your comfort." The experience of Burton J. Lee would encourage the use of low voltage radiation. He reports nine out of fifty-four cases of primary inoperable carcinoma of the breast treated by low voltage radiation alone, living after four years.

If extensive cancerous invasion has occurred, too large a dosage at one sitting is to be avoided. Much protein destruction in individuals sensitive to protein reaction will produce toxic reactions that will harm the patient. Repeated small doses often give encouraging palliation. The general health of all cases of malignancy must be carefully guarded; general tonics, fresh air and liberal feeding are very essential, and in the anemic cases transfusion followed by radiation gives considerable alleviation.

One cannot give the same dosage to all cases, but it must be outlined according to the individual case. However, the chest area will tolerate heavy dosage except the sensitive upper abdomen. If desired, 140 to 150 per cent of an erythema dose may be administered, but not over 90 to 95 per cent should be given over the duodenum. This dosage should be repeated in from three to six weeks, gradually lengthening the interval to once a year and, in my judgment, this annual dosage should be administered for several years.

Dr. W. J. McLean, pathologist in the Scott and White Hospital, has repeatedly protested against the use of preoperative radiation, because the radiation so completely disturbs the cellular structures that he cannot classify the tumor. This, to my mind, is a most convincing argument in favor of preoperative radiation. This experience would also suggest the amputation of the breast and gland dissection, immediately following radiation, to avoid, if possible, this unfortunate occurrence and *to permit the pathologist to classify the tumor.*

In conclusion, I am personally of the opinion that too much emphasis cannot be laid on the importance of close coöperation between the surgeon, the internist and the radiologist in handling breast cancer. Neither is sufficient unto himself, in treating this horrible disease. For either to assume the attitude of self-satisfaction, or to be egotistical or haughty about the part he plays, is to place himself in position to be criticised by all scientific minds.

Dr. John G. Clark of Philadelphia, in the August, 1924, issue of the *Atlantic Medical Journal*, while discussing the relative value of irradiation and surgery in the treatment of cancer, says, "To discard or fail to use radiation as an adjunct to surgical measures in the face of available statistics, should lay the operator open to a charge of criminal negligence."

In my humble judgment, radiation should be used in all breast cancers. It will check hemorrhage and ugly discharges. It will add from one to ten years to the lives of the inoperable cases at a time when these patients are needed in the homes. It will materially raise the percentage of five-year surgical cures. It will make certain inoperable cases operable, and, in the light of present statistics, I feel that every case of

breast cancer is entitled to the benefits of radiation before we are able to say that we have utilized all that medical science has to offer.

ABSTRACT OF DISCUSSION.*

Dr. W. G. McDeed, Houston: The internist, the surgeon and the radiologist must learn to speak the same language. Until we are all able to speak in the same terms we will not be able to understand each other. We have all been talking about the same thing but have advocated so many different methods of treatment as to make it appear that we do not agree on the most salient points. The treatment of malignant conditions is passing through the experimental stage, just as the treatment of tuberculosis has. Several years ago, the radiologist saw patients with cancers after all other methods of treatment had been exhausted. Tuberculous patients were formerly sent west as a last resort to either die or get well. Now the same type of case may be successfully treated at home in almost any locality, and this has been brought about through the medical profession agreeing on the method of treatment.

The cause of cancer must be determined before we can hope to treat it successfully. Carrell has done some important research work in establishing the "Essential Characteristics of a Malignant Cell." This work, in my judgment, will lead to the discovery of the cause of malignant conditions. Contrary to the consensus of opinion, he has found that the round cell, instead of the predominating spindle cell, from the Rous sarcoma grown in vitro, produces a malignant tumor when implanted in a chicken. He has also found that blood macrophags grown in vitro, when inoculated with extract of Rous sarcoma, produce a growth that kills when implanted in chickens. It is possible that certain types of our own tissue cells become malignant when bathed in cancerous secretions and in turn invade the host via the blood and lymph streams.

I am of the opinion that *x*-rays produce a hormone or antitoxin in the surrounding tissues that destroys the malignant cells. As an analogy, furunculosis can be cured or arrested by *x*-rays, and the action is in no way destructive, but is apparently due to the action on the surrounding tissues.

Dr. Johnson's statement that a large majority of patients have metastases before they see a doctor, is quite correct. In these cases one can only hope to render palliative treatment.

Dr. S. D. Whitten, Greenville: This symposium has been very interesting and instructive and should have been heard by every doctor in the State. I am very glad, indeed, to see the surgeon, internist and röentgenologist, coöperating with each other better. It is just like when each of our professors in medical college used to tell us that his subject was the most important. They are all important and we need all of them in combating diseases. We have a few doctors that tell every patient, young or old, that any lump in the breast is cancer. That is wrong. A great many women come to us with lumps in the breast just before menstrual periods, which disappear after menstruation. Telling such patients that they have cancer is harmful.

Dr. O. L. Norsworthy, Houston: It is gratifying to see the internist, the surgeon, the radiologist and the röentgenologist coming closer together. They have been entirely too far apart, heretofore. Papers and discussions such as we have just heard will be more conducive to an acceptance of each other as consultants. Each has its field of usefulness and no one specialist can successfully administer the best to all cases of cancer without the counsel of one or more of the others. There are cases in which the honor of consultant rightly belongs to the internist, the surgeon and the radiologist.

Our forefathers taught that cancer was a blood disease and that it should not be cut or bruised in any way for fear of spreading the disease. Next came a period of teaching that it was a local disease, and that surgical dissection was the only method of cure. Very soon cautery treatment stepped in, next röentgen-ray, and then radium. Today, the most conservative and unbiased workers in cancer research are teaching the necessity of giving attention to the individual's blood as related to prevention and cure of cancer.

Distant metastases in the long bones, liver, lungs, etc., frequent followers of cancer of the mammary gland, warrant the opinion that breast cancer should receive attention from all branches, the internist, the surgeon, and the radiologist.

It is probably true that local recurrences of cancer of the breast are due to incomplete removal of local cancer cells—distant reproduction can hardly be charged to that. Local recurrences could be prevented and others delayed by the correct use of radium and *x*-ray in conjunction with operation. All operative treatment in breast cancer should be done under cautery or endothermic dissection, never by cold steel. Sloughing masses, either primary or secondary, can be very satisfactorily removed by electro-coagulation. Pain following this method will be less and the scar resulting after healing will be less unsightly and uncomfortable.

Dr. Dudley Jackson, San Antonio: We have no more right to treat all cancers with just one remedy than we have to treat all diseases with calomel and quinine. We need something more just as we do in all sickness. Cancer is much less frequent in the young and there must be something in the blood that protects the youth against cancerous invasion, but as he grows older he gradually loses that protective substance and the disease is allowed to develop. Starting with this idea, we have been using young blood for transfusion, which will probably increase the resistance of the patient against the disease and aid the other forms of treatment we may use. We do not consider this method a specific, but by increasing the hemoglobin it makes the patient more resistant to the growth of cancer as well as inhibiting metastasis. We use the blood from the young because we consider they have more of the substance that may prevent metastasis than older people. We have noted that we are getting better results with usual remedies after transfusions and the patients are showing more *come-back*.

Dr. A. C. Scott, Temple: Dr. Crosthwait touched the vital phase of the subject and I endorse in the main everything he said. The suggestions by Dr. Jones that the internist might be able to prevent recurrence after operation, by the proper diet, is well worth consideration. Hoffman has gathered statistics from all over the world, which would indicate that the people who live on vegetables principally are not subject to cancer, but that in the countries where concentrated foods are eaten it is more common. I do not know how much there is to this theory, but there is sufficient evidence at hand to cause us to consider the diet as a possible cause. We know that cancer is on the increase, and this may be the reason there is a steady increase. The responsibility of cancer rests upon the surgeon as a rule. We operate too late and do not select with sufficient care the operation that is applicable to the case, nor do we consider the possibility of reinfection by the knife. I heartily agree with the suggestion

*Discussions of the papers comprising a symposium on carcinoma of the breast, read by Drs. S. Ross Jones, W. L. Crosthwait and J. B. Johnson.

by Dr. Crosthwait that we are amply justified for the time spent in following up the cases we operate. This has been one great fault in the past. By keeping up with the cases we would be able to compare results and do better surgery. We have been prone to praise surgery as a cure, which it is not. Doctor Crosthwait seems pessimistic as to surgery making any advancement in the treatment of cancer. I believe this to be from the fact that we have blundered in the past in operating cases that should be classed as inoperable. We should be more careful in drawing the line.

Metastasis is a most important consideration in the treatment of cancer. It is a fact that one can have cancer in the blood stream, but this is not always an early state. This occurs oftener in malignancies of the neck; metastasis here is earlier and more rapid than in any other part of the body. Hopeless metastasis is most common in breast cancer. It is our custom to send the specimen and glands to the laboratory as we take them out. We have observed that metastasis first occurs under the pectoral muscles and next at the junction of the pectoralis minor and axillary vessels. The glands then get smaller and smaller, with fewer of them involved, until we reach the apex of the axilla. We frequently find that the report of the pathologist is negative until the apex of the axilla is reached. This is the case more often when the growth is about the neck. Crile, in 4,500 autopsies of cancers about the face, head and neck, found that only 1 per cent had metastasized beyond the chain of glands above the clavicle. This means that 99 per cent of cancers of the face, head and neck are local and kill by direct extension to vital organs.

When these patients are operated they are not benefited because the operation is not complete. The statement made by Dr. Crosthwait that cancer can remain dormant a long time is absolutely true; we never know how long a cancer may stay dormant. The age of the patient has a great deal to do with it. Among males at the age of 45, we find that one in eight will die; among females, one in fourteen will die. After the age of 45 the average expectancy is 15 years. There is a 12 per cent chance of return in women and a 7 per cent chance in men, even if there is no history of cancer before. We had a case that was operated for cancer on the hand, which was successfully excised. There was no metastasis in the axilla or anywhere, and he was completely cured. He was quite well for three years, when he had a seborrhea of the scalp and some on the left hand. This was not a metastasis but was a new cancer in a patient who showed a predisposition to cancer. He was in the cancer age. He had more than a 7 per cent chance. This may have been the cause for return in the case Dr. Crosthwait mentioned.

Dr. Jones (closing): The young are not as susceptible to cancer as the old for the reason that their metabolism is higher; they take more exercise and play more, all of which has a tendency to keep the vital organs in better condition and their excretory organs are better able to throw off the poisons. When we get older, we become more sedentary, our appetites become greater, especially for strong, highly seasoned food. As a result, we do not metabolize our food as well and as a consequence the tissue cells suffer.

Dr. Johnson (closing): We were taught in our schools that metastasis occurs in carcinoma by the lymph-stream and in sarcoma by the blood-stream, and, in fact, this is the usual route of metastasis. The reason for this is that carcinoma occurs in less vascular areas and the cells are larger than sarcoma cells. In sarcoma the cells are smaller and the tumor is more vascular, and more likely therefore to spread through the blood-stream. However, this rule is not always true, because carcinoma may spread through the blood-stream and sarcoma through the lymph-stream. The intercellular cement substance has a great bearing upon metastasis. If this substance is such that it holds the cells tightly, we do not have metastasis occurring so early; if the substance is less binding the tumor spreads earlier.

The public should be educated to the fact that regular medical men use all proven methods in treating cancer, that they do not use surgery alone nor radiation alone, but that they use whatever methods are best suited to the condition present, and in many instances combine all the methods. By so doing we eliminate the phobia that the patients have of one particular type of treatment. For instance, some patients are afraid of surgery while others are afraid of radiation, and if we educate them to the fact that the surgeon does not use surgery alone, and that the radiologist not only recommends radiation but surgery where indicated, we will have a better opportunity to have the patients come to us with an open mind.

In conclusion, I should like to leave this thought with you. Our combined efforts at best are little enough, but they do offer the patients a much better opportunity to recover than any previous decade in all the history of the world has offered in the treatment of malignancy, but we must see our cases early if we are to get a high percentage of permanent cures.

THE HURRY HEADACHE.*

BY

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With the exception of the common cold there is probably no minor condition in medicine which produces more annoyance and discomfort, and even economic loss, than headache. It takes the cutting edge from an individual's ability, it removes his optimism, and, if recurrent, eventually alters his personality. It is only a commentary and not a criticism that the emphasis of our medical meetings and papers is placed largely on the most serious conditions which are in many instances incurable. It must not be forgotten, however, that the gentlemen who practice in the twilight zone of medicine gather perhaps ninety per cent of their patients from those who suffer from minor complaints. That this is so, can be traced in many instances to the fact that a patient's complaint of some trivial matter is too lightly regarded or even ignored by a regular physician. On the whole, headache is as poorly and unintelligently treated as any ailment we possess, and the situation is not aided by the direct-to-the-public advertising of coal-tar products, which threatens to make us a race of aspirin eaters.

The interpretation of a headache requires all the skill that a man may employ and his examination must run the gamut from eyes to endocrines and from heart to hygiene. At

*Prepared for the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 7, 1925.

its worst, it means a severe and perhaps fatal condition; at its best, it means that the individual is not in harmony with his environment. It would be impossible in such a short paper to cover the whole subject of headache. The effort here will be to emphasize certain headaches which are caused by unfavorable factors in the patient's surroundings, which are due primarily to his reaction to them, and in which physical factors or disease play only a secondary part. This type of headache is caused by the hurry or drive factor in our modern existence and has certain characteristics which are believed to be sufficiently striking to justify the classification of "Hurry Headache."

Using Aurbach's classification, this type is added, giving a working form as below:

A. Independent forms.
   1. Migraine.
   2. Fatigue.
   3. Rheumatic.
B. Associated with diseases of organs.
   1. Brain diseases (meningitis, encephalitis, tumor).
   2. Organs of special sense (eye-strain, otitis, etc.).
   3. Digestive tract.
   4. Kidney.
   5. Vascular (lumbar puncture, menstruation, hypertension, arteriosclerosis).
C. General diseases.
   1. Acute diseases.
   2. Chronic diseases (syphilis, malaria, etc.).
   3. Intoxications (lead, tobacco, alcohol).
   4. Constitutional diseases (anemia, diabetes, endocrine disorders).
D. Psychoneurotic.
E. Combination forms.
F. Headaches due to economic strain, which may be combination forms but which are due primarily to environment.

While the "Hurry Headache" possibly has elements of fatigue in it and also a psychoneurotic basis, it is not caused by these factors alone. It is caused by the noise and strain of large cities, by the competition of modern life and the drive of commercialism. Since this is so, it is a white collar man's disease. It may be divided into three types: (1) Headache developed during the day when there is extra work or anxiety to get something done by a certain time; (2) It may be developed during the following day or the patient may awake with it after a day which has had some unusual strain connected with it; (3) The patient may have a sense of oppression for several days and then develop a severe headache which lasts for twenty-four to forty-eight hours, is very hard to relieve, and is generally accompanied by falling blood-pressure.

Case No. 1.—A typical case falling into the first group may be given as that of a dentist who found that when he was crowded for appointments, or when he had a patient who necessitated more work at one time than he had allowed for, causing others to wait, would develop a very depressing frontal headache which would persist until he had slept, unless he took one of the coal-tar derivatives. His general physical condition was sound and all the usual laboratory findings were negative. It was found that he could prevent the development of these headaches by self-control and a more casual attitude toward his work.

It might be thought that such a simple case was hardly worth the amount of time it took to work it out, but this individual was probably headed toward high blood-pressure and serious trouble later in his life.

Case No. 2.—One of the most interesting cases should be classified under the second group. This patient was a painter who worked for a large concern and spent his entire time painting about the plant. He felt well all during the week, but awoke Sunday morning with a headache which lasted the entire day. He had been examined by a number of physicians, with all the laboratory findings (including spinal puncture and examination of urine for lead) being negative. Obviously, no physical cause could be found. In talking with him, however, it developed that he worked by a schedule. As soon as one part of the plant was painted, another was ready for repainting. He knew the work that he would be doing for years to come, and he worried about getting through, if for any reason he should have to miss a few days. He was very skeptical when told that the constant worry and drive to get a certain amount of work finished in a given time was responsible for his Sunday headaches, but his trouble ceased when he was given a short vacation and an assistant.

Cases classified under the third group are more rare than any of the others and are difficult to differentiate from the so-called "sick headache." They are, however, characterized by a definite etiology not common to cases falling under the other groups, and are preceded by a period of depression and falling blood-pressure.

Case No. 3.—A woman whose husband brought home every detail of his somewhat unfortunate efforts to accumulate a large fortune would have more or less regularly a period of depression which would progress for a few days accompanied by falling blood-pressure and end in a terrible headache. Opiates had no effect upon one of these attacks, and her only relief was obtained from caffein hypodermatically, followed in a few hours by chloral and bromides. Analysis of the environment showed that the patient's husband rarely left her in the morning without giving her some crisis to expect, and that she spent most of her time living through one "deal" after another. While working to establish in her a more casual attitude toward business affairs, it was found that the attacks could be largely prevented by giving her ten minims of obstetrical pituitary extract with five minims of adrenal extract hypodermatically, every day for several days. In the meantime, she was encouraged to take up the music she had dropped and to mix more with her friends in an effort to take her mind off of her situation. This she has done rather successfully, and there has been no necessity for any medicine for several months.

Hurry in this connection does not necessarily refer to the bodily activity of the

patient, but to a subjective feeling within him which can sometimes be located as a tightness or an uneasiness in the upper part of the chest. Men, when they are so affected, are apt to smoke heavily—thus adding poison to the nervous influence. It is not kind to refuse to alleviate pain, but these patients should never be let off with a prescription, without first explaining that the recurrence of these headaches represents a menace in later life. Many of these individuals are undoubtedly potential material for the various degenerative diseases of middle and old age. A cultivation of self-control in the face of factors which tend to upset and hurry them is a necessity for these people. They should be warned against eating when tired, and many of them will find that a rest before the evening meal will help them in the cultivating of calmness. Physical exercise in accordance with the need of the individual should be insisted upon, for better psychomuscular sense means better control.

Cases under the third group often fall into the hands of quacks, because a hopeless attitude is taken toward them and not enough attention is paid to their social factors. Few of these cases are benefitted by the use of morphin. The best procedure is to stimulate the patient with caffein and then relax him with some mild hypnotic. Where the blood-pressure can be demonstrated to fall before an attack, pituitary extract and adrenalin will give relief. The most important thing is to alter the mode of living of such patients and cause them to develop a philosophy which will carry them over the rough spots.

While we are all concerned with the major things in medicine, we will avoid a great deal of criticism by making sure that enough attention is paid to the minor things as we go along. Many a grateful patient has been gained by other methods than the brilliant diagnosis of an incurable condition. Headache, and particularly this type of headache, forms an excellent starting place for careful attention to minor medicine.

DEATHS DUE TO SYPHILIS IN FRANCE.

Twenty thousand infant deaths, 40,000 abortions and 80,000 deaths among adults is the toll exacted by syphilis in France each year, according to the Minister of Labor, Hygiene and Social Welfare, as reported in a recent number of "*The Lancet*" (London). The government is undertaking a campaign of public enlightment and is instituting preventive measures for which 4,000,000 francs are appropriated annually. The minister states that progress is taking place and points to the fact that syphilis is no longer regarded as a disease to be hushed up.—*U. S. P. H. S. Health News.*

THE UNRECOGNIZED COMPRESSION FRACTURE OF THE VERTEBRA.*

BY

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and

C. P. BROWN, M. D.,

EL PASO, TEXAS.

It is not the object of this discussion to deal with the forms of fracture of the spine, which give an immediate and complete disability, accompanied by paralysis and shock, but to call attention to the fact that there are many factures of the spine caused by much more trivial injuries, without immediate disability, and without paralysis.

These fractures are quite classical in the method of their production, and their symptoms, and in the progress of their pathology, and are known as compression, crush, or flexion fractures of the body of the vertebra. In the great majority of cases it is produced by hyperflexion of the spine. It may be produced by force transmitted through the head by a heavy object falling upon the head, or through the legs by a stiff-legged fall. For these reasons it is always important to get an accurate description of the details of the accident. There is no place where careful history taking is more important, because the victims of these accidents are frequently looked upon as malingerers.

As detailed in the cases to follow, the patients often have but slight disability to begin with, but this progressively increases over a period of two to three months, when they are forced to consult a physician. If a surgeon is consulted immediately following the injury, he is misled by the mildness of the symptoms, and if consulted at the end of two or three months, he is sure there is nothing seriously wrong because the condition has not forced the patient to ask for aid at an earlier period. Surgeons have been accustomed to believe that any kind of fracture of the spine will cause more serious injury; consequently, carefully made lateral *x*-ray pictures are frequently not taken.

CASE REPORTS.

Case No. 1.—G. D., a school girl, aged 13 years, went down a slide on the school grounds, three and a half months ago, at 9 a. m. She hurt her back and had to lie down for five minutes, but went on a hike at noon. Moderate pain continued, but it was two months before a physician was consulted. The important details in this history are that her buttocks hit the ground, and the nape of her neck, still being on the end of the slide, forcibly flexed her spine. Three months after the injury she had a deformity in the lower dorsal region, the pain was growing progressively worse, and she was hardly

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 7, 1925.

able to be around without support. The diagnosis was a compression fracture of the body of the eighth dorsal vertebra.

Case No 2.—A. E. S., male, aged 40 years, dived off a springboard into a pool and struck the bottom with the top of his head. This caused some pain in his back, but he finished his swim. It was three months later when he applied for medical attention, at which time he had spinal deformity and progressively increasing pain, until he was unable to follow his trade as a car foreman. A crush fracture of the body of the eleventh dorsal vertebra was diagnosed.

Case No 3.—J. D. J., a male, aged 30 years, fell off a motor-truck and "wrenched" his back. He had considerable pain at the time, but went about his duties for four months, at the end of which time the pain was becoming progressively worse, and he had an almost complete disability as a telephone lineman. He could give no exact details as to how he fell. He had a fracture of the body of the third lumbar vertebra.

Case No 4.—W. A. P., a male, aged 50 years, fell off of a carpenter's platform, six feet high, alighting across a saw-horse. He was unable to get up and walk without help, but had no paralysis. He was taken to the hospital and remained there for two weeks, at which time he had sufficiently recovered to be up and about. He continued under the care of physicians, and was not considered seriously injured, as the usual anteroposterior *x*-ray pictures showed no bony injury. He was finally looked upon as a malingerer. Lateral pictures showed a marked compression fracture of the body of the second lumbar vertebra.

Case No 5.—W. L. S., a male, aged 48 years, was a brakeman. A log rolled off of a flat car, throwing him backwards, his buttocks striking the ground, about two feet from a tree. The upper part of his spine hit the tree, causing hyperflexion. He had some fractured ribs, and an injury to his leg. Three months later he continued to complain of pain in his back, and it was discovered that some deformity had developed, and that he had a compression fracture of the body of the first lumbar vertebra.

Case No 6.—W. T. E., a male, aged 46 years, a switchman, fell under a car and was rolled in hyperflexion, with his head against the ground. Anteroposterior *x*-rays were negative. Three months afterwards, because he still complained of pain in his neck, *x*-ray pictures were very carefully made. These showed a fracture of the odontoid process of the axis from excessive flexion of his neck.

The above patients had had ordinary anteroposterior radiograms taken, some of poor and some of good quality. The fracture in each case had been missed because the details as to the receipt of the injury had not been minutely analyzed, and transverse *x*-ray pictures had not been taken. All these patients have more or less permanent disability, although much of that might have been avoided by an earlier recognition of the condition, and by proper treatment. If the condition is recognized immediately, it is better to keep the patient in bed with extension for two months, and then to continue with a good cast or brace that will support his weight and keep his spine in extension for from six months to a year.

The tendency in these fractures is for the deformity to gradually increase as the body bends forward. Even when the condition is discovered late, the weight should be supported and the spine held in hyperextension.

We are full accord with Dr. James C. Wallace's[1] conclusions, as follows:

1. Many fracture-crushes of the spine, without cord involvement, are unrecognized. A great many physicians think that if a man can walk he has not fractured his spine, and treat him for sprains and contusions of the soft parts.

2. The majority of fracture-crushes of the spine receive no adequate treatment. They are allowed up after periods of from one to eight weeks in bed without any support, and gradually break down and become deformed. It is highly essential, no matter how long a patient has been in bed, that he have adequate support in order to restore, at least partially, the normal function of the spine, while at the same time preventing the occurrence of deformity until the return of full function is permissible.

3. It is very easy to fracture a vertebra if weight is applied to the top of a slightly flexed spine.

4. Every case of suspected fracture of the spine should have a thorough *x*-ray examination, *and that means plates taken anteroposteriorly and laterally.*

ABSTRACT OF DISCUSSION.

Dr. F. A. Bird, Olympia, Washington: All injured patients with pain the back should be *x*-rayed with anteroposterior and lateral views, and preferably stereoscopic. There are two forms of treatment of these fractures, depending upon the amount of compression. If the latter is more than one-third, it will require an open operation with an inlay; if less than one-third, a special form of belt should be worn around the pelvis to hold the patient in extension. Taking them out of bed early accelerates the promotion of new bone and ankylosis or a filling in of the body. If an Albee inlay is used, at least two vertebrae each way from the injured one are included in the inlay, using the splitting process. These patients are, as a rule, unable to work for a long time and have considerable disability.

Dr. Chas. F. Clayton, Fort Worth: I have in mind three cases of fractures of vertebrae that were not recognized. One was a compensation case. Only two out of six physicians conceded the existence of a fracture; two called it a congenital condition, and the radiologist classified it as being tuberculous. We must consider well the mechanics of the spine in the treatment of these cases. I agree with Dr. Bird. Many of these cases should be treated with an open operation. Many cases are gotten too late. A bone inlay or graft is certainly, to my mind, the procedure of choice.

Dr. W. B. Carrell, Dallas: We see a fair number of such cases in our fracture service at Dallas, and believe that in all cases with a loss of more than one-half of the body of the vertebra, that the

1. Wallace, James C.: Crush Fractures of the Spine, Journal of Bone and Joint Surgery, January, 1923, p. 28.

vertebrae should be fused before deformity occurs. Thorough fixation of the spine should be done for from six to twelve months, regardless of whether it is to be followed by operation.

Dr. Brown (closing): The purpose of this paper is to accentuate the fact that (1) these patients do not have much disability in the first place, and (2) the classical way they get these fractures. Most cases are not seen for two or three months after injury, and these are usually the worst kind. The important thing is to keep the weight off the vertebra. First treat them in bed with extension and continue the extension after they get up. I am inclined to believe that the most of these cases can be taken care of without a bone graft. Some of these cases have run from one to four years and all have disability. They will develop marked deformity and disability without rest, hyperflexion and keeping the weight off the vertebra for a long time.

RECONSTRUCTION OPERATIONS OF THE HIP JOINT.*

BY

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Reconstruction operations to correct certain mechanical defects of the hip afford relief to a large class, which in the past have not been considered amenable to treatment, and even at present are generally regarded as hopeless. These conditions are not active pathological processes, but the result of various etiological factors, as follows: (1) Ununited fractures of the neck of the femur after the possibility of inducing bony union by operative measures has passed; (2) congenital dislocation of the hip after the age when reduction can be safely accomplished by open or closed methods; (3) paralytic dislocations of the hip; (4) pathological dislocations or fractures as a result of a destructive process, such as tuberculosis, osteomyelitis, etc.

Any one of these conditions may cause material disability with definite symptoms. This is due to weight bearing on normal soft structures or scar tissue, which are usually incapable from a physiological or embryological point of view of undergoing sufficient development to give support without undue strain. It is true that many so afflicted are able to carry on their daily occupations with slight inconvenience, which is probably due to formation of a high grade fibrous tissue and cartilage, in consequence of which treatment is neither sought nor offered. However, there is undoubtedly a high per cent of cases, recognized by every practioner of medicine, by their lack of endurance, and by local and referred pain, which are often of such a degree that any measures that offer reasonable chance of benefit are eagerly accepted. In such cases alone are surgical measures indicated.

The details of operative technique differ, but as there is a loss of support to the upper extremity of the femur in the above-mentioned condition, the basic principles are the same, the object of which are the restoration of a natural support to the defective part. This must obviously be composed of bone, as it is the only tissue capable of sufficient pas-

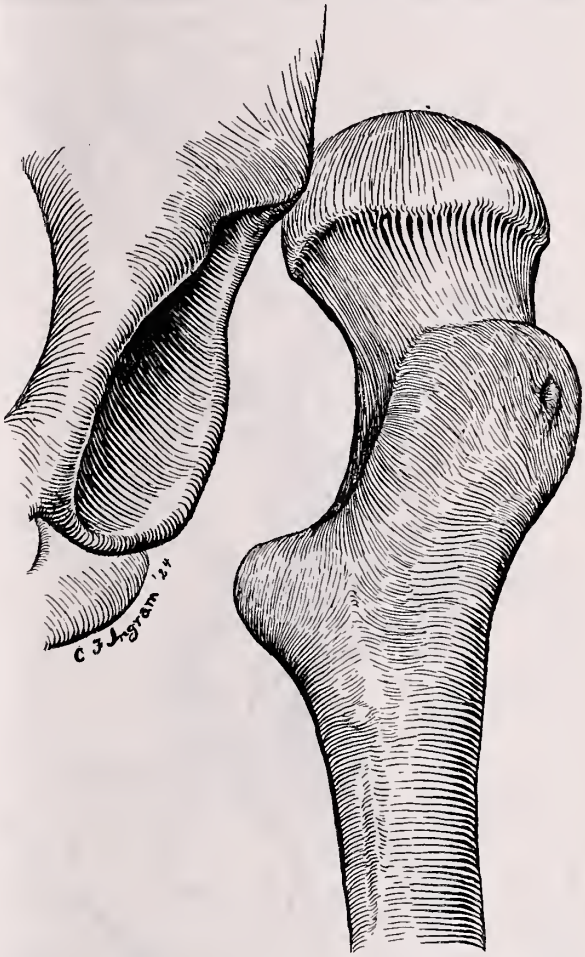

FIG. 1. Drawing from radiogram taken prior to operation, showing dislocated femoral head and shallow acetabulum.

sive resistance; besides, bone responds more favorably than other tissues to the demands of nature, the so-called functional adaption of the law of Wolfe. A demonstration of this physiological phenomenon is observed after grafting of bone or when a deficiency in continuity has occurred; for instance, if a portion of the tibia from any cause has been lost, there will invariably be compensatory hypertrophy of the fibula to such a degree that it may acquire the same dimensions as the normal tibia and be capable of supporting the weight of the entire body.

The four types of hip joint pathology above

*Read before the Section on Surgery, State Medical Association of Texas, Austin, May 6, 1925.

mentioned with the operative technique applicable to each will next be discussed.

1. Ununited fractures of the neck of the femur under one year, and in certain favorable conditions, even after an elapse of two years, may be induced to unite by solid bony union with restoration of normal function by the means of operative measures described in former publications. In consequence, reconstruction operations are only indicated when the process of pseudoarthrosis reaches a permanent status. Individuals so afflicted possess a distressing permanent and often total disability; two crutches are usually required, and there is often constant pain with frequent exacerbations and, occasionally, a neuritis which may be complicated by a form

Fig. 2. Showing the turning down of superior portion of acetabulum by a curved chisel, thus deepening the acetabulum.

of herpes zoster, or shingles. The röentgenogram shows that the head and neck of the femur may be partially or entirely absorbed. The osseous structure of the head presents such extreme atrophy as to be incapable of bony proliferation. The distal fragment is above the acetabulum, loose in the soft tissues, and separated from the head by one or more inches. Brackett of Boston, and later, Whitman of New York, devised methods which have been eminently successful in robust individuals whose conditions will permit the required surgical shock. Brackett reams out the head of the femur, then denudes the neck, or trochanter if no neck exists, after which the two fragments are approximated by abducting the limb. Whitman excises the head, chisels loose the upper portion of the greater trochanter with attached gluteal muscles, and then places the upper extremity of the femur within the acetabulum. The greater trochanter with the gluteal muscles is attached to the shaft of the femur at a lower level, with the limb abducted and moderately rotated inward to overcome the existing tendency to adduction and external rotation. Lorenz devised an ingenious procedure which he calls the "bifurcation operation," but it is not so effective as the Brackett or Whitman methods, though of great value in the aged or debilitated who cannot undergo the more radical operations. A simple osteotomy is performed through an incision of about one inch, fracturing the femur below the greater trochanter; the limb is then abducted, throwing the distal fragment within the acetabulum. The length is further decreased, but if stability with relief from pain is accomplished, an elevation of the shoe will easily compensate. I have been able to secure the same result without decreasing the length in the aged or debilitated, by removing the trochanter with attached gluteals and placing the neck of the trochanter within the acetabulum, after which a bone flap is turned down from the ilium to extend the roof of the acetabulum and insure support to the upper extremity of the femur. The trochanter is reattached at a lower level, after the manner of Whitman. Both from a mechanical and functional standpoint a more satisfactory result is thus obtained; however, the Brackett or Whitman operations are the methods of choice when feasible, with the addition of extending the acetabulum as above described.

2. In congenital dislocation of the hip that has passed the age when reduction can be safely accomplished by the open or closed methods, reconstruction operations are indicated when there is persistent strain, as evidenced by the symptoms above mentioned or by increasing mechanical disability. A new acetabulum is chiseled out at a point in the ilium above the site of the normal joint, where reduction can be accomplished without stress, but as the bone is too thin in this region to secure sufficient depth, multiple bone flaps are turned down from the dorsum of the ilium. The excavated bone from the new acetabulum is utilized by placing it about the

bony flaps, which in time will fuse into one conglomerate mass continuous with the ilium, thus forming a new roof to the shallow acetabulum and insuring sufficient depth.

3. Paralytic dislocation is a frequent sequence to poliomyelitis or infantile paralysis affecting the muscles of the hip joint. It may develop as a gradual evolution of a flail hip after the elapse of years, or may occur during the early stage of the paralysis, after which there may be a return of muscular power, but the dislocation is permanent. The dislocation may be complete or the head may slip in and out of the acetabulum while walking. Frequently, the patient may voluntarily dislocate the joint and reduce it. The röentgenogram demonstrates that the acetabulum is shallow and that the angle between the neck and the shaft is increased, the so-called coxa valga.

Operations consisting of muscle transference, artificial, transferred or transplanted ligaments and tucking of the capsule, are inefficient and usually result in recurrence of the dislocation. I have devised a method which has proven successful in a number of cases, the technique of which is briefly as follows:

The skin incision is made along the anterior third of the crest of the ilium to the anterior superior spine, then downward for three or four inches on the outer anterior aspect of the thigh, an incision described by Smith-Peterson as an approach to the hip. The muscular attachment of the crest of the ilium is severed and the entire mass with periosteum of the ilium is peeled downward to the hip joint. The anterior muscles of the thigh can be easily separated along the same line, thus giving excellent exposure of the hip joint after the incision of the capsule. A curved wood-carver's chisel is inserted above the acetabulum, breaking loose the entire superior portion with the articular cartilage attached; this is then pulled outward, thus extending the roof of the acetabulum. Muscle flaps of raw bone are turned downward from the dorsum of the ilium, filling the space above the extended acetabulum. Reduction can usually be accomplished without stress. Fusion, with an efficient acetabulum, is acquired in about sixty days, thus giving support to the upper extremity of the femur with material restoration of function and increased efficiency.

4. In destructive processes, such as tuberculosis and osteomyelitis, the technique of operative measure when required is conducted along the same lines, but on account of the probability of relighting latent infection is not frequently indicated.

After the completion of the operation for any of these conditions, the limb is fixed on an orthopedic table, or held by an assistant, at the desired angle of abduction and with moderate internal rotation until a plaster cast is applied, extending from the nipple line to the toes of the affected side. This cast remains on the patient until fusion is complete, which is, on an average, about eight weeks; when a brace is applied, which permits walking with a greater portion of the

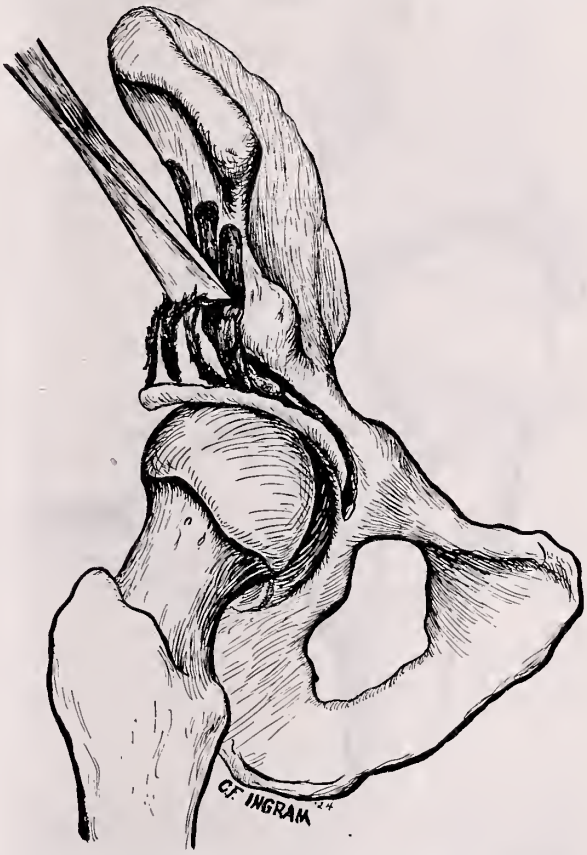

Fig. 3. Multiple bone flaps being turned down to fill in space between ilium and superior portion of acetabulum.

weight transmitted to the perineum. The Bradford abduction hip splint meets all requirements. As soon as the röentgenogram demonstrates complete organization of new bone, which is usually in from three to six months longer, the brace is discarded.

The results of reconstruction operations of the hip cannot be estimated collectively, as the pathological and mechanical conditions above mentioned are varied, nor can an estimate be made in terms of cures, but, in a very general way, experience has demonstrated that the following end results might be expected:

1. In ununited fractures of the neck of the femur, pain is relieved, crutches are discarded and the hip is stable. There is always

a definite limp which, however, is very slight in some cases.

2. In congenital dislocation, the pain is relieved, the elastic excursions of the hip are prevented and the limp decreased.

3. In paralytic dislocations, the hip is rendered stable, more efficient, and the endurance of the individual is materially increased.

4. In pathological dislocations and fractures, the same relative results may be obtained, but as the scope in this type is less, conclusions at this time are unwarranted.

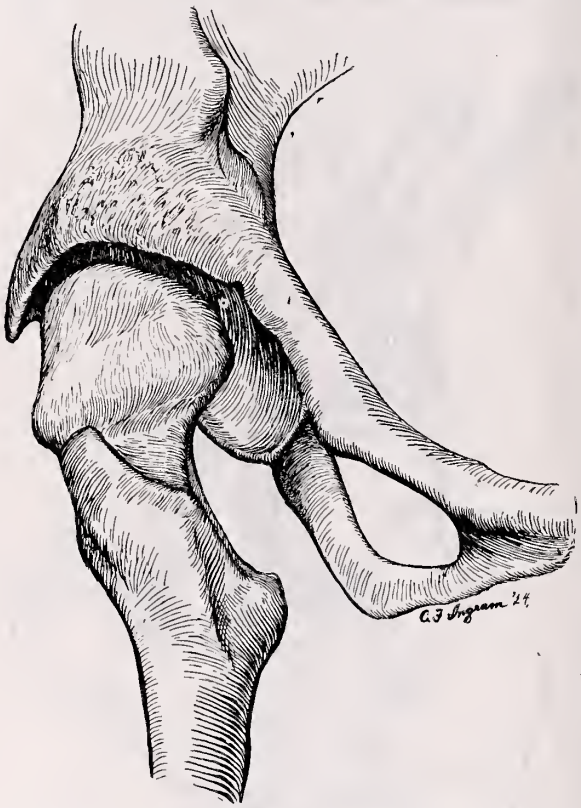

FIG. 4. Drawing from radiogram taken eight months after operation, showing end results. Note fusion of bone flaps and superior portion of acetabulum, preventing upward dislocation of femoral head.

Reconstructive procedures of the hip joint require a comparatively short space of time and with practically no operative risk; in over thirty operations there have been no deaths or even symptoms of shock or infections; consequently, as relief is afforded a class which even at present is generally considered hopeless, these measures are regarded as advisable whenever indicated.

Ovarian Residue Dessiccated-P.-D. & Co.—The residue from the fresh ovary of the hog or cow after the removal of the corpora lutea, dried and powdered. Ovarian residue is used for the same conditions as those in which the entire ovarian substance is used. The product is also marketed in the form of capsules and tablets containing five grains. Parke, Davis & Co., Detroit.

MY IDEAL RAILWAY SURGEON.

BY

JAMES A. JONES,

General Claim Agent, F. W. and D. C. Ry. Co.,

FORT WORTH, TEXAS.

I come to you from the Fort Worth and Denver City Railway, the rails of which traverse the garden spots of the greatest of states—Texas. The Denver road diagonals this great section from Fort Worth, "Where the West Begins," to Texline, passing through the scenic Staked Plains, finding the salubrious climate and placid scenery, which appeal so strongly to all of us, especially when the sun from about the middle of July to September twentieth, drives us to think of and long for the cooler breezes of the higher altitudes. When we board a Denver sleeper at Fort Worth or Dallas, at night, bound for the cool of Colorado, our hot weather troubles are over, for the Denver with its shorter route, quicker time, oil-burning locomotives, finer roadbed, more commodious sleepers, unexcelled diners, softer beds, deeper cushions and more courteous employees, will take us by the next morning to that enchanted land where cool breezes blow; where the mirage of the plains country entertains us, and where the romance of the passing West is spread in panoramic fashion before us; where new born industries surprise us and the climate lulls us to forget our physical and mental discomforts, and to forgive our enemies. One short night, and—Presto! we are in fairyland. I am telling you doctors this, for I know your natures and that nothing is too good for your patients and that the good word will be passed along as it should be.

I am here before you by invitation, and I shall take the liberty of considering myself one of you, if you will pardon the presumption which, by the way, is not so great a presumption as it might appear on first thought, for I have been able to make the halt and sorely stricken to throw away their crutches, the bed-ridden to get up, desert their beds and walk, and those possessed of an evil neurasthenic spirit to blossom out in smiles after the most skilled of you have tried and failed! Now I will talk about ourselves, if you will have the forbearance to listen to me. In order that you may know positively what I have meant to talk about, my subject is "My Ideal Railway Surgeon." You, yourself, may be IT or you may not, but the beauty of the situation is that you do not have to agree with me on anything I say. If you will not be too impatient and will not

*Read before the Texas Railway Surgical and Hygienical Association at Austin, Texas, May 4, 1925.

throw me out before I have tired down and quit, I will be grateful and I believe you will feel better tomorrow than if you had undertaken to apply the more energetic remedies that self-defense may suggest. But to be plain with you, I am going to hold back my definition of my ideal railway surgeon until I have said some other things which I want to say, in the hope that by so doing, you will listen to these other things. I know enough about human nature to know that as long as one has hope one may live through most anything for a time.

You all know about the humble beginnings of your profession and how in the old days it was not known that the blood circulated, but that the idea was prevalent that the blood vessels were air passages; how the vital organs of the body were identified one by one; how years were spent in checking up and verifying these discoveries; how crude surgery was first undertaken in a very limited manner by a very few of the most daring; how vivisection was resorted to to assist in gleaning a speck of knowledge and how the goody-goody of that old-time world raised the same hullabaloo that the Society for the Prevention of Cruelty to Animals now raises about that subject, and how the surgeon, who is yet recalled by many of you, used to strap his patient down on a board and proceed with the operation which was necessary to save the patient's life, until one bright day in 1846, God in His goodness to mankind showed the way to a pioneer and general anesthesia came as a blessing to suffering humanity, and was given to the whole world by its discoverer, without price and without reward, except that great reward that has always actuated the surgeon, the knowledge of a duty well performed. In my judgment, the most wonderful, the most spectacular advance made by any science in the history of the world, has been that made by medical and surgical science during the past three score and ten years. This advance has been made possible solely by the practice of your profession in giving freely and frankly to your brother all that you have learned, all that you know, without reservation, without stint, and without price. I have heard of but one or two instances where medical or surgical knowledge was offered for sale, and in each and every one of these cases, the offerer was an arrant faker.

Your profession, as a body of scientists, has served faithfully and uncomplainingly. The road has been stony and uphill but not a murmur of regret has ever come from one of you, once you have taken up the burden and turned your face toward the goal at the top of the mountain. It has not been the hope of gain that has actuated you or your brother, but the desire to serve the profession, the hope of lessening the burden of suffering mankind, and when you have found a foothold upon the steep and stony trail, you have marked it freely for the use of the other brother who might come that way, and for the benefit of humanity in general. To my mind, this practice or habit has marked your profession as one of the most noble of all, and has been one of the reasons why an all wise Providence has blessed you in achievement, as He has done and as He is now doing.

But nothing less should be expected of a race of men who, like yourselves, are imbued with the spirit of that far-reaching obligation which old Hippocrates required of his disciples and lived up to, himself, with the same stoical principles which actuated him to send a substitute to attend the King of Austria, when the call had been for himself. And you who have caught the spirit of Hippocrates' oath must be fairly good men, for doesn't it say:

"I swear by Apollo, the Physician, and Aesculapius, and Hygeia, and Panacea, and all the gods and all the goddesses, and make them my judges, that this mine oath and this my written engagement I will fulfil so far as power and discernment shall be mine.

"Him who taught me this art I will esteem even as I do my parents; he shall partake of my livelihood, and, if in want, shall share my goods. I will regard his issue as my brothers, and will teach them this art without fee or written engagement if they shall wish to learn it.

"I will give instruction by precept, by discourse, and in all other ways, to my own sons, to those of him who taught me, to disciples bound by written engagement and sworn according to medical law, and to no other person.

"So far as power and discernment shall be mine, I will carry out regimen for the benefit of the sick, and will keep them from harm and wrong. To none will I give a deadly drug, even if solicited, nor offer counsel to such an end; likewise to no woman will I give a destructive suppository; but guiltless and hallowed will I keep my life and mine art. I will cut no one whatever for the stone but will give way to those who work at this practice.

"Into whatsoever houses I shall enter, I will go for the benefit of the sick, holding aloof from all voluntary wrong and corruption, including venereal acts upon the bodies of females and males, whether free or slaves. Whatsoever in my practice or not in my practice I shall see or hear, amid the lives of men, which ought not to be noised abroad—as to this I will keep silence, holding such thing unfitting to be spoken.

"And now, if I shall fulfil this oath and break it not, may the fruits of life and of art be mine, may I be honored of all men for all time; the opposite, if I shall transgress and be forsworn."

In my quest for the early history of your tribe, that first railway surgeon, I have gone near and far, seeking to find the facts. I might have come to you and told you the complete history of that man, and none of you, perhaps, would have been able to put your

finger upon an error, for it seems that the multitudinous duties incumbent upon a railway surgeon are such, and have always been, that he has no time in which to record the passing events or the history of himself and his contemporaries. In that dim perspective of one hundred years ago, when that first one was chosen and the brotherhood of railway surgeons was started, the facilities for printing and recording the events of the day were limited; writing was laboriously done by hand and with a goose quill, and paper and ink were scarce and costly, so that not much of the current history was recorded as it took place. I might have put this over and you would perhaps have said, "Well, that fellow is all right." But I could not do this, any more than you could tell me, after an unsatisfactory examination, which did not convince you, that you were perfectly pleased with the examination and sure of your diagnosis, were I to come to you pleading for relief from pain, and asking for an extension of my life. So I will have to disappoint you as I have disappointed myself in my history of that pioneer in the calling, "The First Railway Surgeon," but I can truthfully assure you that while I do not know whether I have located him or not, yet I do know that whatever was his name, wherever he lived and from wherever he came, he was the leading doctor of his community, was held in the highest esteem by his fellowman and by his brother surgeons, as the railway surgeon has always been, and I believe I know to what place he went when he closed his instrument case for the last time, measured out the last powder to relieve the suffering of frail humanity, or, with a soothing hand, wiped the perspiration from the brow of painful motherhood, and started alone on that long journey to Eternity.

In my search for the First Railway Surgeon, I may or may not have found that very individual, but if I have not, I have gotten close to him. Much of the history of the early railroads, their activities and development, which is a most wonderful and most fascinating historical epoch in the progress of man, was never recorded, for the simple reason that the makers of this history as well as their observers, did not at the time realize the part in civilization which they were then acting and important events slipped along unnoticed and untold. For instance, we know that the very beginning of railways was when some coal miners in the north of England laid timbers shaped like hog troughs without ends, parallel to each other, for a track across a stretch of muddy field from their mine's mouth to the river side where they loaded the coal into barges. They rented an "ease-way" from the farmer owning the field, and even today the right-of-way of a railroad is referred to in England as an Easeway. These miners discovered that they could thus with one horse move 4 200 pounds of coal from the mine to the river's edge, more easily than they had formerly moved over their dirt roads the load of 1,700 pounds. The practice spread and, after its start some time about the middle of the seventeenth century, was in pretty general practice, with a horse as the motive power, when the first steam engine was invented. Even the name of the inventor of this steam engine is somewhat in doubt. In England, the first steam railway was the Stockton and Darlington, chartered by parliament in 1824, and partly in operation, perhaps, in 1825. In America the first railway, really meaning what the term now means, came a few years later. The Baltimore and Ohio, which commenced its "bornin" about 1827, hauled 6,000 tons of freight and 80,000 passengers in 1831. If it had a surgeon at that time, then the annals of historical lore are silent about him, and all that we know about him is "that he was a scholar and a gentleman."

But coming with the summer suns of the year 1834, were the first gray streaks of historical dawn so far as the first known Railway Surgeon is concerned. By much vigilance and industry, we have compiled the following historical pictures, more properly designated as historical scraps, for so incomplete are those things we would like to know about each individual, which we do not know, that the word scrap properly describes the gathered and known data.

THE FIRST KNOWN RAILWAY SURGEON.

In July, 1834, Dr. Jas. P. Quinn, of Martinsburg, West Virginia (then a part of the great State of Virginia), was appointed railway surgeon for the Baltimore and Ohio Railway from Point-of-Rocks to Harper's Ferry. Speaking of Dr. Quinn's appointment, today, it may look like a small thing, but when we recall that he was then surgeon for nearly all the railroad that was in the United States, the job becomes of some importance. We suspect the doctor was at least part Irish, and we know that he was the best surgeon between Point-of-Rocks and Harper's Ferry. We also know that he comported himself as a good, honest Irishman ought to do, that he was at his country's service and that he was loyal to his company, but where he came from, what school had honored him with a degree, whom he married, and those other things we might like to know about him must forever remain just over the hori-

zon of oblivion and obscured from our view. He came from Martinsburg some 20 miles away to have charge of this territory which comprised the main line for 12.9 miles.

THE SECOND KNOWN RAILWAY SURGEON.

Back in '49 when his more adventurous brothers were madly chasing the phantom of riches in the rush across the Great American Desert to the gold fields of California, pioneering with death and adventure, we find our second known railway surgeon, pioneering in the honorable profession which you gentlemen represent. He was Dr. Apply of Cochocton, New York, serving the great Erie Railway at that place as its first surgeon. His son, Dr. W. W. Apply, of Cochocton said that his father was known as the "Railroad Doctor" all through the Delaware Valley, from the time the Erie was built, in 1849, to the time of his death in 1877. From this we see that Dr. Apply served for 28 faithful years and died in harness.

THE THIRD KNOWN RAILWAY SURGEON.

Dr. John Lowman of Youngstown, Ohio, was the first surgeon for the Pennsylvania Railroad. He was appointed in 1858 and remained at his post of duty for thirty years, dying in 1888 with the longest record of continuous service to his credit, of which we have learned among the early surgeons of the American railways.

THE FOURTH KNOWN RAILWAY SURGEON.

Dr. W. R. Hamilton of Pittsburgh, was appointed surgeon by Andrew Carnegie, then an official of the Pennsylvania Line, in the year 1862. I do not know why Dr. Hamilton was in Pittsburgh and available for the appointment, instead of being just back of the lines at Gettysburg or Vicksburg, but I am willing to believe that there was a good reason. I do not know if it was because of an empty coat sleeve, but it was there.

THE FIFTH KNOWN RAILWAY SURGEON.

The fifth railway surgeon whose identity is established, (but he probably could not have been even the fiftieth if we could but get all the facts) was Dr. Nixon, chief surgeon of the Southern Pacific Lines, who was appointed the first chief surgeon in 1868. During the 17 years of his administration, the first railway hospital department in the world came into being on the Southern Pacific System. This was followed a few years later by one on the Missouri Pacific, then by one on the Santa Fe, and then rapidly by others, until now a railway company without a hospital association is regarded as a very poorly managed and primitive affair.

It is to the old Central Pacific (now a part of that great Southern Pacific) that poor old Casey Jones wanted to ride before he died, that the credit for the erection of the first hospital devoted exclusively to railroad work must be given. This first exclusive railroad hospital was, curiously enough, located in the West, being at Sacramento, California. It can be readily seen that the roads in the East could avail themselves of the better private hospitals in that section, while the western roads found it difficult to supply their demands for hospital facilities, hence this pioneering step of the Central Pacific in building what was then a very modern hospital and dedicating it to the exclusive use of its employees. The Central's successor, the Southern Pacific, now has at San Francisco, what is reputed to be the finest railway hospital in the world, erected only a few years ago at a cost of one million dollars. The hospital activities of the railways of the United States, having proven to be of such value to the employees and employers alike, are being copied by other big businesses, year after year, and it seems very likely that in a comparatively short time, the idea back of it will prevail to a greater or less degree throughout the American business world. And when this does take place, may we hope that along with the idea will go the determination on the part of those in authority to have only the most honorable, most competent and most deserving set of gentlemen as surgeons.

Now, I will describe in fourteen points, the qualifications of my ideal railway surgeon. I *could* say nineteen points and name them; while, on the other hand, I could say seven points, and the surgeon who possessed the seven, would have the other half of my named fourteen, I believe.

First: He is absolutely honest. I put this qualification first, because I think it ought to be first when taking the measure of any of us. The man who is not *honestly* honest, cannot be depended upon in a pinch, and it makes no difference what other good qualities he may possess, he is not worth as much as he would be worth were he honest. It is not a debatable question that both the railway company and the injured man ought to be willing to face the truth.

Second: He keeps record of all his cases and keeps them so intelligently and thoroughly that, at any time, he can give you a complete history of the most insignificant case that has come under his observation. Memory is a treacherous thing, and it is only the man with the complete written record who can always be depended upon.

Third: He is the most skilled practitioner in his community. The fact that he is a railway surgeon is usually evidence, *per se,* of this fact. If he lags behind, he can only hope to be *one* of the railway's surgeons at his home town, and this only with good luck.

Fourth: He is studious and resourceful. No other kind of surgeon can hold his own in this modern age of progress, serious injuries and fakers and shysters, both in the legal and medical professions.

Fifth: He feels pride in being a railway surgeon, and he is perfectly justified in so doing. Feeling this pride, he sees to it that no act of his can be construed as a reflection upon his brother railway surgeons, nor upon himself as an individual. Like Ceasar's wife, he is not only straight, but he is above suspicion.

Sixth: He is suspicious. This does not mean that he is unreasonably suspicious, or that he would be afraid to prescribe for a friend who was going fishing, but does mean that he has enough suspicion about his make-up to be willing to go into every case thoroughly and concisely and to ascertain if it is just what it purports to be, or if there are elements of exaggeration or simulation in it. It is, to my mind, very pathetic to see a bright-minded, competent and skilled man fooled by a faker who is a good actor. Not so long ago a little widow filed a claim against the Denver for injury to her pretty brown right eye. She had had a cinder in it while riding in an unscreened coach. The local surgeon took the foreign body out, but the eye was very angry. The doctor's son—just back from college—suggested that a smear from the eye be put under the microscope, but the father, free from all traces of suspicion, demurred. The claim agent joined the younger man and finally their counsel prevailed, on the theory that an honest person can stand an investigation. The result was that the claim was withdrawn, the proper remedy was used and the eye healed. The Moral is: Do a good deal of smearing.

Seventh: He stands well with his fellowmen, knows them, likes the best of them, and is liked by them. His life has been such that he is believed in by those who know him. He is respected by all who come in contact with him, for he is a man who treats his own wife well and leaves other men's wives alone.

Eighth: He is frank. He tells the claim agent all the bad news about the case that he will tell under cross-examination, and does not mislead the patient about his true condition, for he cannot do this without violating his first qualification.

Ninth: He has that indefinable quality—magnetic personality. This enables him more easily to exercise those other qualifications listed herein. It can be acquired to some degree, I believe, by making one's self agreeable and at the same time preserving one's dignity. It cannot be builded up by making one's self agreeable at the expense of one's self-respect. There is nothing synonymous between grovelling and magnetism.

Tenth: He is a fighter. He has no chip on his shoulder, but he is "long on" that rare old principle of being sure he is right and then going ahead.

Eleventh: He has influence with his patients. He has their confidence and respect and they are willing to abide by his judgment, because they know that he is honest. It is a curious fact that we know what is in a man, intuitively, regardless of what he says and does. Remember, always, that the other fellow knows when you have come clean with him.

Twelfth: He has influence with his company. He may not know it, but he has; and if there be a rare case where he has not, then that individual ought to beat them to it and resign.

Thirteenth: He is willing to use his influence with both his patients and his company to keep personal injuries from becoming lawsuits.

Fourteenth: He is a good witness. The man with the other thirteen qualifications could hardly lack the quality of being a good witness, and my definition of a good witness is one whose testimony is effective for the side using him. If the facts are such that your testimony will not help your company, tell your claim agent in advance frankly, and he will thank you, and will probably settle the case.

ABSTRACT OF DISCUSSION.

Dr. A. A. Ross, Lockhart: In behalf of the Texas Railway Surgical Association I wish to extend our most hearty and sincere thanks for this very splendid paper, and I hereby move that this paper be published in the TEXAS STATE JOURNAL OF MEDICINE. (The motion was seconded and carried.)

Dr. W. R. Thompson, Fort Worth: I wish to emphasize one point that Mr. Jones has brought out and that is the question of "suspicion." My experience with patients employed by corporations and railroads has caused me to become suspicious. I have been lead to believe that some of our best citizens will bear watching. I remember one case, that of a man whose history indicated a minor injury, and yet who claimed blindness in one eye. This patient had been under treatment before I saw him. I found that he could see normally in both eyes. We should consider the possibility of fraudulent claims in all railroad cases, until they prove otherwise.

Dr. M. L. Langford, Mart: I remember, twenty

years ago, when a switchman claimed to have been struck by a switch lever. I stripped him for an examination and went over him carefully, but found no fractures or evidence of serious injury. Within 48 hours the company was served with a notice of suit for damages. Another physician had examined the claimant, strapped his chest, and told him he had ample grounds for a suit and could get some money out of the company. But he failed to do so, due to the fact that I was suspicious and had made a careful examination and obtained sufficient evidence to block him. I have seen men who claimed they could not walk without crutches, who recovered soon after satisfactory negotiations with the claim department, and this is another reason why it is well to look with suspicion upon such cases.

Dr. M. M. Brown, Mexia: Railroad surgeons should make a written history of every case, no matter how minor it may seem at the time. If a man who has sustained what we consider minor injuries, is dishonest and intends to subsequently make claims for damages, we will be called upon for information. Memory is a treacherous thing, particularly to a busy surgeon, and unless we can refer to a carefully prepared report, we are unprepared to furnish the necessary information, thereby placing our companies in a defenseless position. After making several mistakes of this character, I adopted the routine practice of making a written report on every alleged injury, regardless of how trivial it appeared to me at the time.

Dr. D. M. Higgins, Gainesville: It appears to me, also, that we should suspect and carefully examine every railroad man who has received an injury. It is also very necessary to obtain a carefully written history. If the injury is a frame-up, or is exaggerated, we will catch them in a misstatement somewhere. Years ago I attended a man who fell from the top of a box car, and claimed to be totally disabled. He remained at his home where he could avoid observation. I was never able to gain admittance to his home without waiting about five minutes. I was suspicious and when the claim agent asked me for an opinion, I advised him to settle. This was done and that same evening the man threw his crutches away and went to Denver. Claimants receiving compensation and weekly indemnities from accident policies totaling as much, or more, than their earnings, frequently make troublesome cases and their disability rarely terminates until sufficient evidence is obtained by a doctor who is clever enough to expose them. Now it is true that dishonest patients think they are very smart. (How they must laugh to themselves when they fool a doctor!) but they are at a disadvantage, because most any doctor knows more than they do and can expose them if he suspects dishonesty.

Dr. Wm. H. Neely, Terrell: We cannot overemphasize the importance of examinations and detailed records. A little experience soon teaches us that many dishonest or exaggerated personal injury claims follow railroad accidents, and it is only natural that railroad surgeons should become suspicious. Ignorance on the part of the patient makes the detection of fake injuries quite simple. Recently, I attended three negroes who had been injured in a railroad accident. One of them was struck on the right side of the head and he tried to fake a paralysis on the right side of the body.

Dr. W. W. Wilson, Memphis: I have the distinction of being local surgeon for the railroad that Mr. Jones serves as general claim agent, and I know that he is willing to assume full responsibility for injuries when he is advised to do so by his company surgeons. I attended a father, mother and five weeks old baby who had been injured by the railroad. The baby was not injured very badly, but before it was examined and put to bed, the mother had become so nervous and weak that she was also put to bed, although at the time I did not think she had been seriously hurt. However, being anxious to give her every service possible, I made a thorough examination and found serious bruises on her side and a fractured pelvis. The mother finally recovered and her claim was settled to her satisfaction by Mr. Jones, as he was convinced that there was no fraud or deception, but if we had not made a proper examination, the final outcome might have been entirely different.

Dr. J. O. McReynolds, Dallas: It seems to me that we should give careful consideration to the mental attitude of the patient so that we can make a proper approach. Some of the largest lawsuits occur when there are no objective symptoms; others have many subjective but few objective symptoms. If we approach the patient in a visibly suspicious manner, we start on the wrong track. The patient is placed on his guard and, besides, our suspicions may be unfounded. Therefore, it is important for the railroad surgeon not to convey the impression to the patient that he is trying to catch them, but to approach them in the attitude of one who is trying to coöperate. In this way the patient's confidence is secured and then they are much better patients and we can go on with our examinations without any interference.

Dr. E. H. Cary, Dallas: I do not believe there are anything like the number of serious claims, today, that there have been in the past. I do not know whether it is the lack of serious injuries, or the manner in which they are handled, but I think it is the latter. The railroads are not forcing the patients to bring suit as they formerly did, by refusing to pay them. I think the key to the whole situated is a good, clean claim agent and a straight forward doctor who uses a little diplomacy.

Dr. I. A. Colgin, Waco: Great emphasis has been placed here, today, on the necessity of making thorough examinations. This is very true, but how hard it is to do it! Once I examined a man who complained of pains in the left lumbar region. After examination the left kidney was discovered low down in the pelvis. I think few doctors take the time, even when they have the opportunity, to make a complete examination; and when they do, I sometimes wonder if it is appreciated by the claim department.

Dr. I. P. Sessions, Rockdale: I want to emphsize Mr. Jones' first qualification of a railway surgeon, namely, honesty. The railway surgeon is governed more by his honesty than by all the other thirteen points put together. A reputation for honesty means a reputation that has been accumulated by years of service for the company. The doctor has to represent both sides, and see that justice is done to the patient and the railroad. When we are called upon to attend members of families, whose heads are employed by the railroad, we are placed in a peculiar position. We must give an honest diagnosis and give it in such a way that it will not look as if it were partial. If we are honest and diplomatic, many cases can be settled out of court. The reputation of the surgeon keeps many cases from going to court.

Dr. J. M. Johnson, Giddings: The railroad surgeon should always take a statement from the injured when he first sees him, as then the patient's only desire and thought is for treatment. Statements made then are usually truthful. If a statement is obtained after he has had time to think matters over, and decided to make a claim, his statement will be modified. Once I attended a man for a

minor injury and he made a truthful statement as to the cause of the accident. The next morning one of his friends approached me and asked if I had sent the statement to the company; since if I had not, the injured man would like to change it. I told him the statement had not been sent in; that he was at liberty to change it if he so desired, but that I would send in the first statement regardless of any alterations.

Dr. Q. B. Lee, Wichita Falls: I enjoy the pleasure of working under Mr. Jones, and I think this is a good opportunity to call his attention to a fact which was not brought out in his paper or in the discussion, namely, that other corporations and insurance companies pay $3.00, $5.00 and $10.00 for examinations, while the railroad only pays a dollar. Speaking of honesty among doctors, I wonder if some doctors make as good an examination when they are only paid one dollar, as they do when they are paid $5.00.

Dr. Wm. N. Wardlaw, Childress: I wish to commend Mr. Jones for his very splendid paper. He has given us some very interesting facts. Had I not known him, I would have taken him for a colleague. Railroad surgeons are usually very proud of their connection with the railroad and endeavor to give good service. It is my practice to take histories of all cases. However, it has been my experience that the fellow who is malingering does not come to us at first, and I always first ask him if he has been to some other physician.

Dr. I. D. Jackson, San Antonio: It is my belief that an honest man does not become a malingerer over night. Usually, their schemes are carefully planned. There are a group of employees who send unnecessary emergency calls to the company's doctor. After we make two or three of these unnecessary calls, we become suspicious and we now have a special file on such cases and we believe that most of the malingerers will come from this class of employees, and that within ten years we will probably be able to tell beforehand when a suit is being planned.

Dr. J. M. Frazier, Belton: Many claims are prevented by doctors. I think the local surgeons of all companies save them a great deal of money by the way they handle the patients, or by helping the company settle claims at a fair and reasonable figure. One way of preventing claims is in making physical examinations of employees before they are put on the company's payroll. All injuries should be carefully examined and the findings and histories recorded for future reference.

MISCELLANEOUS

SARCOMA OF TENDON SHEATHS AND APONEUROSES.

To the Editor:

Giant cell sarcomata of the tendon sheaths and aponeuroses about the hands and feet, are not particularly rare conditions; but unless one has seen such lesions before, they are rarely recognized and usually inadequately treated. The following case was recently under my care:

A young, healthy, married woman, 23 years old, came to me about ten months ago with a small freely movable lump a little larger than a pea, on the dorso-ulnar side of the proximal phalanx of her left middle finger. It was apparently encapsulated and the skin moved freely over it, but it seemed attached to the extensor tendon of the finger. I decided it was a small giant cell sarcoma or xanthoma of the tendon sheath and advised removal. A week later she went to another city and stayed three months. While there, a very competent surgeon removed the tumor, left a skin drain in the wound for several days and told her she had tenosynovitis. There was almost immediate recurrence, and when I saw her again the tumor was much larger than it had been before operation and was covered by a livid, stretched-out scar. It caused her no pain, but she had gotten the idea that she had cancer and was greatly upset.

On examination there was a prominence at the original site of the tumor, over which the skin was quite red and traversed by a broad conspicuous scar. The tumor seemed to be made up of two lobules, the larger measuring about 1¾ cm. and extending almost to the midline dorsally, and a considerably smaller lobule attached to the first and extending almost as far ventrally. The skin was not attached to the tumor and did not seem thickened or tender. The tumor moved freely on the deeper parts, but tensing the extensor tendon partially fixed it. Under novocain-adrenalin anesthesia, an elliptical incision was made over tumor, and the overlying skin, including the old scar, was carefully dissected off. The larger lobule intimately involved the extensor sheath which was taken away with the tumor, leaving the tendon bare for a distance of about half an inch. The tumor also seemed quite closely adherent to the digital nerve which was partially cut in the dissection. After hemostasis, the skin was closed with fine silk, and a pressure dressing applied to obliterate any dead space. There was primary union with an almost invisible scar, but partial anesthesia of the ulnar side of the finger still persists.

The tumor consisted of two lobules, the larger measuring ¾x½ cm. and the smaller being about half that size. It was distinctly encapsulated and a small portion of tendon sheath was attached to it. On section the tissue bulged slightly from the tense capsule, was somewhat translucent and of a very cellular character. No grossly xanthomatous areas were seen. Microscopically, the tumor was made up of closely packed connective tissue cells which did not seem to be growing very rapidly. No mitoses were seen, but many multinucleated giant cells of the epulis type were found throughout the tumor. Diagnosis: Giant cell sarcoma of the tendon sheath (recurrent).

The true nature of these tumors is apparently not understood even by many experienced surgeons; they have been called granulation tissue tumors as a result of the same reasoning that led to the designation of giant cell sarcomata of bone as "hemorrhagic osteomyelitis," being considered as low grade inflammatory processes resembling tumors histologically. They are generally spoken of, however, as true tumors. Garrett, working in Bloodgood's laboratory, reports a series of cases collected over many years from various sources, treated adequately and inadequately, in which there were about 15 per cent of recurrences after excision. They are practically always cured by a second operation if a thorough dissection is done and the portion of the tendon sheath or aponeurosis from which the tumor is growing is taken away en masse. However, I saw one involving the tendons of the thumb in a physician who had the best of care from the start, but in which three operations were required for permanent cure. Such a tumor on the hand or foot has never been known to produce metastasis, but histologically similar tumors above the knees and elbows have been known to metastasize.

A tumor with which these growths may be confused is xanthoma, so called from the yellow lipoid pigment, xanthin, which it contains. Xanthomata occur in the same localities and are of about the same grade of local malignancy as the other tumors. They

may be recognized grossly by the presence of patches of a uniform bright yellow color. I have seen one on the thumb cured by careful excision, and have also observed a brilliant yellow tumor growing from the flexor tendons of the foot behind and beneath the internal malleolus, which recurred three times in two years. This yellow pigment is washed out in the fixation process, leaving the so-called "foam cell" appearance which is characteristic of the tumor histologically.

It should be more generally appreciated that these tumors, though only locally malignant, deserve a very careful and thorough removal, including the attached portion of the tendon sheath, but that a mutilating operation is practically never necessary.

R. J. White, M. D.,
Fort Worth, Texas.

ATTENTION, CONTRIBUTORS TO SECTION ON RADIOLOGY AND PHYSIOTHERAPY!

Contributors to the program of the Section on Radiology and Physiotherapy, of the Annual Session of the State Medical Association of Texas, which meets in Houston in May, should read their papers before their respective county societies at once. The title of the paper to be submitted and also an outline of the paper should be sent to Dr. L. W. Kuser, Gainesville, if it be on Radiology, and to Dr. J. W. Torbett of Marlin, if on Physiotherapy. Suggestions concerning prospective contributors to this section will be gratefully received. The coöperation of county society secretaries is solicited.

(Signed), J. W. Torbett, Chairman;
L. W. Kuser, Secretary.

DR. S. E. THOMPSON MISQUOTED.

Dr. S. E. Thompson, superintendent and director of the Thompson Sanatorium at Kerrville, has called our attention to his discussion of Dr. W. H. Ross's paper on "Teaching and Control of the Tuberculous Patient," in the December number of the Journal. In the fifth paragraph of this discussion, *as edited*, the next to the last sentence reads, "The average physician is not only incapable of treating tuberculosis, but he does not have the equipment for this purpose." In the original typed discussion which Dr. Thompson sent us this sentence reads, "It is not a question so much of the average physician being incapable of treating tuberculosis, but he has not the equipment for this purpose."

Dr. Thompson wishes it to be made perfectly clear that he was not questioning the general practitioner's ability either to diagnose or treat tuberculosis, but wished to bring out the fact that the proper treatment of the tuberculous demands special equipment which is ordinarily not available to the average physician.

AMERICAN BOARD OF OTOLARYNGOLOGY.

An examination will be held by the American Board of Otolaryngology in Dallas, Texas, on Monday, April 19, 1926, and in San Francisco, California, on Tuesday, April 27, 1926.

Application should be made to the secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Boro-Chloretone.—A dusting powder composed of chloretone (New and Nonofficial Remedies, 1925, p. 91), 1 part; boric acid, 1 part; purified talc, 2 parts. Parke, Davis & Co., Detroit.

Powdered Whole Lactic Acid Milk-Merrell-Soule.—A modified milk preparation prepared from whole milk soured by the action of a culture of *Bacillus bulgaricus*. Each 100 gm. contains approximately butter fat, 28 gm.; protein, 26 gm.; lactose, 33 gm.; free lactic acid, 4 gm.; ash, 6 gm.; moisture, 3 gm. When suitably mixed with water, powdered whole lactic acid milk-Merrell-Soule is said to be useful in the feeding of infants when a soured milk is indicated. Merrell-Soule Co., Syracuse, N. Y.—*Jour. A. M. A.*, Dec. 5, 1925.

Ovarian Substance Desiccated-P.-D. & Co.—The entire fresh ovary (including the corpora lutea) of the hog and cow, dried in vacuo and powdered. For a discussion of the actions and uses, see Ovary, New and Nonofficial Remedies, 1925, p. 251. The product is also marketed in the form of five-grain tablets. Parke, Davis & Co., Detroit.

PROPAGANDA FOR REFORM.

Examination of Brands of Cinchophen.—Cinchophen was introduced in the U. S. under the proprietary name "Atophan" by Schering & Glatz. At one time "Atophan" was included in New and Nonofficial Remedies. It was omitted in 1921 because unwarranted therapeutic claims were made for it, and for other reasons. As a result of the war, cinchophen was manufactured in the U. S., and at that time the A. M. A. Chemical Laboratory examined the market supply and found this satisfactory. Now the Laboratory reports the results of a re-examination. The Laboratory found that the cinchophen now marketed is still purer than that examined before and that all brands complied essentially with the standards of the new U. S. Pharmacopeia. It is concluded that all the products reported on (cinchophen-Abbott, cinchophen-B. P. C., cinchophen-Calco, cinchophen-M. C. W., cinchophen-Morgenstern and Atophan) are equally good for therapeutic purposes, and that one is no better than another. The report of the Laboratory brings out the exorbitant price that the public and the profession have to pay for proprietorship in medicine. Under its nonproprietary name, cinchophen can be purchased for from fifty cents to one dollar per ounce; but "Atophan" costs from $2.50 to $2.75 for the same amount.—*Jour. A. M. A.*, Dec. 5, 1925.

NEWS

Dallas Chiropractor Pleads Guilty.—According to the *Dallas News*, W. H. Anderson, chiropractor, pled guilty to violation of the Medical Practice Act recently, and was fined $30.00 and given thirty minutes in jail.

Charges of Violation of the Medical Practice Act Filed at Waco.—Charges of violation of the Medical Practice Act were filed against E. K. Jensen, T. D. Peebles, Geo. A. Miller, Douglas Davis, and Charles Lemly, at Waco, according to the *Waco News-Tribune* of December 31.

Potter County Chiropractor Acquitted.—J. F. Bromert, Amarillo chiropractor, was recently acquitted of a charge of practicing medicine without a license, because of an improperly drawn complaint, according to the *Amarillo Globe*. It is understood that new charges will be filed.

Charges Filed Against Johnson County Chiropractor.—A *Fort Worth Star-Telegram* of recent date contains the information that charges have been filed in Johnson County against J. Tom Walker, Nell Flemming and M. Jensen, chiropractors, for violation of the Medical Practice Act.

Mt. Pleasant Chiropractor Found Guilty.—Kenneth Taylor was found guilty of violation of the Medical

Practice Act by a jury of his peers at Mt. Pleasant, early in December, and his punishment was assessed at a $50.00 fine and one minute in jail, according to the *Tyler Journal* It is understood that many other violators of this important State law will be tried at an early date in East Texas.

Negro Hoodoo Doctor Pleads Guilty.—W. H. Anderson, negro hoodoo doctor, pled guilty at Dallas to violation of the Medical Practice Act, and was fined $50.00 and thirty minutes in jail. The *Dallas Dispatch* is responsible also for the statement that Dr. T. J. Crowe, Secretary of the State Board of Medical Examiners, said in connection with the above case, that hoodoo doctors as well as chiropractors are among those against whom the State Medical Association and the State Board of Medical Examiners are making a determined fight.

Fifty-Seven Medical Applications Are Approved.—Fifty-seven applicants were licensed to practice medicine in the State of Texas recently at a session of the State Board of Medical Examiners held at Fort Worth. Seventeen of this number took the examinations in Dallas, November 19, and 42 were licensed under reciprocity agreements with other states. Three who failed to pass the fall examinations were refused licenses, while four others presenting reciprocity papers were turned down, but may take examinations in deficient subjects. Nine members of the state board were present. Those who passed the fall examination were: C. N. Atkinson, Greenville; Charles W. Barrier, Fred R. Krown and W. B. Whiting, Wichita Falls; Manuel F. Braida, Brownsville; Antonio Sanelli, Naples, Italy; Louis S. Pentel, J. F. Rader and Byron W. Wyatt, Houston; G. M. Stephenson, Cisco; Humberto Roggi, Laredo; Armond O. Rogers, Ennis; W. E. Schulkey, W. H. Seale and Edgar Eugene Smith, Dallas; S. B. Tucker, Nacogdoches, and S. P. Weir, Beaumont.—*Waco Times Herald.*

U. S. Army Medical Corps to Hold Tests Soon.—Examinations of applicants for appointment in the medical corps of the regular army will be held at various stations in the eighth corps area during the period of January 11 to 15.

There are 59 vacancies in the medical corps at present. Applications should be forwarded to the commanding general, eighth corps area, Fort Sam Houston, or to the Adjutant General, Washington.

To be eligible for this examination the applicant must be a graduate of an acceptable medical school, legally authorized to confer the degree of doctor of medicine; must have had at least one year's hospital training subsequent to the completion of a four-year course of instruction in such medical school, or in lieu thereof have served one year as a medical officer of the United States army between April 6, 1917, and July 1, 1919, and must be between the ages of 22 6/12 and 31 6/12 at the time scheduled for this examination.—*Fort Worth Record-Telegram.*

In the Name of Science.—Dr. C. H. Barlow, a medical missionary to China, is the material of which martyrs are made, except that his was a case of an attempt to benefit science, instead of being done under stress of religious ardor.

The Chinese have suffered for many years from a parasite that infests the stomachs of its victims, and the doctor wanted to bring enough of the specimens to the Johns Hopkins University laboratory to be able to study them with the view of finding how they may be successfully combated.

Not having test tubes or other paraphernalia for the purpose, he adopted the simple expedient of selecting 32 promising specimens from the stomach of a patient, swallowing them and bringing them in person, so to speak, to the laboratory where the study could take place to the best possible advantage.

If a man is entitled to be immortalized for giving his life for a belief and another man is awarded a medal for the number he killed in single handed combat under the title of war, what should we do for a man who will go to such lengths to save countless thousands of lives?

Which was the predominant motive, that of the "missionary" or that of the "scientist?" It would be a splendid thing to know in view of the controversy going on in some quarters over the alleged incompatibility of religion and science. On its face it looks as though it ought to bring them at least one step nearer together.—*Fort Worth Star-Telegram.*

SOCIETY NEWS

Angelina County Medical Society met December 18, at the Hotel Bonner at Lufkin, with the following members in attendance: Drs. D. M. Childers, C. E. Alexander, O. M. Dillon, J. W. Hawkins, E. A. Sweatland, L. T. Tinkle, W. B. Treadwell, T. A. Taylor, J. C. VanNuys, and H. M. Wilson.

A sumptuous banquet was served the society at the Hotel Bonner. Misses Mitchell, Polk, Hipoes and Hinkley, nurses from the Angelina Hospital, were present as guests of the society.

After the banquet the election of officers was proceeded with, with the following result: President, Dr. R. T. Canon; vice-president, Dr. W. W. Dunn; secretary-treasurer, Dr. C. E. Alexander (re-elected), all of Lufkin.

Bell County Medical Society met at Temple, December 2, at 3 p. m. The following officers were elected for 1926: President, Dr. Wm. Gambrell of Belton; vice-president, Dr. I. D. Ellis of Troy; secretary-treasurer, Dr. Edgar R. Boren of Belton (re-elected); board of censors, Dr. Jake Frazier of Belton.

After the election of officers, Dr. M. W. Sherwood of Temple read a paper on "Primary Handling of Traumatic Wounds."

Some interesting case reports were then given.

Dr. R. M. Monroe was received by transfer from Ellis County Medical Society.

Following the meeting a dinner was served at the Harvey House at 6:30 p. m.

Bexar County Medical Society met November 19, 1925, with 45 members and 3 visitors in attendance.

Dr. W. S. Hanson presented a number of *x*-ray pictures in a series of chest cases, and gave brief case reports in each case.

These case reports were discussed by Drs. Herbert Hill, I. S. Kahn and W. M. Barron.

Dr. J. E. Coyle read a report written by Dr. Cole Kelley, on a case of abdominal pregnancy. On operation the tumor was freed from the numerous adhesions to the intestines, and removed. The uterus was found to be normal in size and pushed to the right where it was held by numerous adhesions. Dissection of the tumor showed it to be a fetus and placenta of about 6 or 7 months.

This case was discussed by Drs. S. P. Cunningham, Sigmund Burg, and Dudley Jackson.

Dr. Albert Steiler reported two cases of nerve injuries, the first an injury to the right median nerve, which resulted in complete recovery. The second case was one of a gunshot injury of the lateral and posterior cords of the brachial plexus. The first part of the axillary artery had also been destroyed. Due to the amount of tissue destroyed, no effort was made to bring the ends of the nerves together. The wound was dressed and the hand and forearm were placed in a plaster cast. The usual treatment of

gunshot wounds was given, in addition to which, for the past three months, the patient has received physiotherapy treatment, and some movements have returned to the fingers and arm.

This case was discussed by Drs. J. W. Goode, J. A. McIntosh and S. P. Cunningham.

Dr. L. F. Robichaux reported the case of a Mexican whom he had seen with a severe osteomyelitis of the mandible. There were four discharging sinuses and board-like induration of the jaw. The case has improved greatly following thorough drainage.

This case was discussed by Drs. C. F. Lehman, S. Burg, S. P. Cunningham, and W. M. Barron.

Dr. Thos. Dorbandt reported that Dr. Berry had obtained the names of fifty individuals who were practicing in Bexar County without having registered.

Bexar County Medical Society met December 3 with a large attendance.

Dr. Byron H. Goff of New York City, who was for many years chief of the Gynecological Service at the New York Polyclinic, gave an interesting address on "The History of Antiseptic Surgery in New York City." He gave a brief history of the Woman's Hospital, which had been built for Dr. Marion Sims by the women of the city. He stated that at the time he was an interne in that hospital under the chief surgeon, Dr. Thomas, sea sponges were used in the abdomen, and that the mortality in laparotomies was expected to be at least 25 per cent. One morning Dr. Thomas read an abstract from a British medical journal, concerning the views of Lister relative to antisepsis, and sent orders to the interne on his service to boil all the instruments, sponges, etc., to be used in the operations. A vessel was found with difficulty and the orders carried out, and thus the Listerian era of surgery was introduced into the Woman's Hospital. The sea sponges were gradually replaced by gauze sponges, and so, step by step, modern surgery came into its own.

Dr. S. P. Cunningham gave a brief resume of his visit to the Clinical Congress of Surgeons. He gave brief extracts from the papers read by Drs. Eliason of the University of Pennsylvania, Llewlyn, J. G. Clark, and DaCosta.

Talks on the Campaign of Publicity and Enforcement of the Medical Practice Act were made by Drs. J. A. McIntosh, Thos. Dorbandt, W. B. Russ, D. Berry and E. V. DePew.

A committee, composed of Drs. S. P. Cunningham, P. I. Nixon, and Dudley Jackson, was appointed to make arrangements for a banquet to be given in honor of Dr. C. M. Rosser and Lieutenant-Governor Barry Miller, Friday, December 11. Eleven thousand dollars was pledged for the publicity campaign.

A report was made by a committee that had been appointed to investigate and report on the question of having a classified physicians' directory in the 'phone book. This committee reported that a classified list would not be published in the telephone directory unless paid for by the society or the individual members, and recommended that the society publish such a roster in the directory, which would cost $35.00 per month. This recommendation was adopted by a vote of the society.

Dr. Louis F. Dodd and Virginia Hale were elected to membership.

Bexar County Medical Society met December 17, at which time the following officers were elected for the year 1926: President, Dr. Patrick Ireland Nixon; vice-president, Dr. C. Ferdinand Lehman; secretary, Dr. R. Stuart Adams (re-elected); treasurer, Dr. C. E. Scull (re-elected); censor, Dr. William E. Nesbitt; delegates, Drs. J. A. McIntosh, Robert E. Bowen and Dudley Jackson.

Bowie County Medical Society met December 4, and the following officers were elected for 1926: President, Dr. T. F. Kitrell of Texarkana; first vice-president, E. M. Watts of Texarkana; second vice-president, Dr. W. S. Tyson of New Boston; secretary-treasurer, Dr. M. N. York of Texarkana; delegate, Dr. J. N. White of Texarkana; alternate, Dr. Wm. Hibbitts of Texarkana.

Brown County Medical Society met December 8, and the following officers were elected for the ensuing year: President, Dr. W. B. Anderson; vice-president, Dr. C. C. Bullard; secretary-treasurer, Dr. Homer B. Allen; censor, Dr. A. L. Anderson; delegate, Dr. H. L. Lobstein, all of Brownwood.

Cameron County Medical Society met December 17, at Harlingen.

Dr. B. O. Works of Brownsville, gave an interesting address on the "European Tour" conducted for American physicians by the Interstate Postgraduate Assembly.

Following this address, officers for the ensuing year were elected as follows: President, Dr. Malone Duggan of La Feria; vice-president, N. A. Davidson of Harlingen; secretary-treasurer, Dr. R. E. Utley of Harlingen (re-elected); board of censors, Dr. Harry K. Leow of Brownsville.

Cherokee County Medical Society met at Rusk, December 1, with the following members in attendance: Drs. J. M. Travis, J. N. Bone, W. H. Sorey and R. T. Travis of Jacksonville; W. A. McDonald of Alto; J. B. Ramsey of Forest; W. G. Barnette of Gallatin; T. H. Cobble, R. C. Priest, J. F. Johnson and E. M. Moseley, all of Rusk.

Visiting doctors were: Drs. E. A. Sweatland and Dunn of Lufkin, and Lindley Smith of the Rusk State Hospital.

Officers for 1926 were elected as follows: President, Dr. F. A. Fuller of Jacksonville; vice-president, Dr. R. C. Priest of Rusk; secretary-treasurer, Dr. T. H. Cobble of Rusk (re-elected); delegate, Dr. T. H. Cobble; alternates, Drs. J. N. Bone of Jacksonville, J. B. Ramsey of Forest, and E. M. Moseley of Rusk.

Clay County Medical Society met December 28. The following officers were elected for the ensuing year: Dr. H. D. Vaugher, Byers, president; Dr. Albert Greer, Henrietta, vice-president, and Dr. James H. Ferriss, Henrietta, secretary-treasurer. Dr. H. D. Vaughter was elected as delegate to the annual meeting to be held in Houston, and Dr. T. K. Jones of Henrietta, alternate delegate.

Collin County Medical Society met at McKinney, December 8, and the following officers were elected for the ensuing year: President, Dr. J. C. Erwin, Jr., McKinney; vice-president, Dr. W. R. Mathers, McKinney; secretary-treasurer, Dr. P. D. Robason (re-elected), McKinney; delegate, Dr. J. D. Burt, Farmersville; alternate, Dr. Will C. Wright, Farmersville; board of censors, Dr. W. R. Mathers, McKinney.

Comal County Medical Society met December 22, 1925, at New Braunfels, Texas, and the following officers were elected: President, Dr. R. Wright, New Braunfels; vice-president, Dr. L. G. Wille, New Braunfels; secretary-treasurer, Dr. Frederick Fink, New Braunfels; censors, Drs. A. Garwood, New Braunfels; L. G. Wille and Frederick Fink.

A revised schedule of fees was adopted by the society in accordance with recommendations by a committee appointed for that purpose.

Cooke County Medical Society met at the Gainesville Sanitarium, December 15, at which time the following officers were elected: President, Dr. L. W. Kuser; vice-president, Dr. E. C. Mead; secretary-treasurer, Dr. O. E. Clements; censor, Dr. R. C. Whiddon; delegate, Dr. C. B. Thayer; alternate, Dr. J. M. Wattam.

Coryell County Medical Society met December 20. The following officers were elected for the ensuing year: President, Dr. E. B. Baker of Gatesville; secretary, Dr. T. M. Hall of Gatesville; censors, Drs. R. L. Raby of Gatesville; F. B. King of Pearl, and D. C. Homan of Oglesby; delegate, Dr. D. M. Jordan of Oglesby.

Dallas County Medical Society met December 3, with 42 members and several visitors present.

Dr. Rockett reported the case of a child with sugar in the urine which cleared up promptly upon removal of infected tonsils.

Dr. J. B. Giles reported the case of a child who developed rabies and died, thirteen months after having been bitten by a dog.

Dr. A. I. Folsom presented a child two years and four months old, from which he had removed a tumor of the kidney the size of a large grape fruit. The diagnosis had been made by cystoscopic examination. Microscopic sections showed the tumor to be an embryonal sarcoma.

Dr. R. E. VanDuzen, in discussing Dr. Folsom's case, told of a similar case which turned out to be hypernephroma.

Dr. A. I. Folsom read a paper on "Urological Examinations in Children" (with lantern slide illustrations), which was discussed by Drs. W. M. Peck, T. C. Gilbert, J. B. Giles and R. E. Van Duzen.

Dr. C. Frank read a paper on "Treatment of Diabetes, With Report of Cases," which was discussed by Drs. Geo. Underwood and J. B. Giles.

Dr. L. M. Sellars was elected to membership on transfer from the Jackson County Medical Society of Missouri.

Dallas County Medical Society met December 10, with 195 members and several visitors present.

Dr. R. M. Ramsdell was elected to membership on transfer from the Travis County Medical Society.

After the reports of standing committees, the society proceeded with the election of officers and the following were elected for 1926: President, Dr. John O. McReynolds; vice-president, Dr. W. W. Shortal; secretary-treasurer, Dr. W. W. Fowler; delegates, Drs. J. J. Terrill and Geo. L. Carlisle; alternates, Drs. J. S. Calhoun and T. M. Jarmon; censors, Drs. D. H. Hardin and J. H. Marshall.

Delta County Medical Society met at the Cooper Hotel, Cooper, Texas, December 8, 1925, and after a very enjoyable dinner the society adjourned to Drs. Lowry and Taylor's reception rooms for a business session. The following officers were elected for the ensuing year: President, Dr. W. H. Forrester of Klondike; vice-president, Dr. E. B. Wheat of Cooper; secretary-treasurer, Dr. C. C. Taylor of Cooper (re-elected); delegate, Dr. S. F. Blair of Cooper, and alternate, Dr. O. Y. Janes of Cooper.

Denton County Medical Society met December 10 at Denton, and the following officers were elected for 1926: President, Dr. E. R. Lester of Roanoke; vice-president, Dr. M. L. Martin of Denton; secretary-treasurer, Dr. M. D. Fullingim of Denton (re-elected); censor, Dr. J. H. Allen of Justin; delegate, Dr. C. D. Francklow of Pilot Point; alternate, Dr. M. D. Fullingim.

DeWitt County Medical Society met at Cuero, December 29, and the following officers for 1926 were elected: President, Dr. John Gillett Burns of Cuero; vice-president, Dr. J. H. Hale of Yoakum; secretary-treasurer, Dr. B. J. Nowierski of Yorktown (re-elected).

The next meeting of the society will be at Yoakum, which will be a joint meeting of DeWitt and Lavaca County Medical Societies.

Eastland County Medical Society met at Ranger, December 17, at the Gholson Hotel, with 18 members present. The following officers were elected for 1926: President, Dr. Charles Hale, Cisco; vice-president, Dr. J. B. Stackable, Ranger; secretary-treasurer, Dr. E. L. Graham, Cisco (re-elected); censor, Dr. Joseph W. Gregory, Cisco.

Ellis County Medical Society met December 8, at Waxahachie, and the following officers were elected for 1926: President, Dr. N. J. Pickett of Milford; vice-president, Dr. F. L. Story of Ennis; secretary-treasurer, Dr. E. F. Gough of Waxahachie; delegate, Dr. S. H. Watson of Waxahachie; alternate, Dr. W. P. McCall of Ennis; board of censors, Drs. W. P. McCall, J. S. Terry of Ennis and J. B. Jenkins of Waxahachie; program committee, Drs. W. C. Tenery, chairman, and S. H. Watson and J. E. Jones, all of Waxahachie.

Waxahachie physicians attending the meeting were: Drs. F. H. Adamson, J. B. Jenkins, F. H. Jenkins, J. E. Jones, Herbert Donnell, W. C. Tenery, G. M. Goddard, O. P. Sweatt, W. F. West, M. E. Hastings, S. H. Watson and E. F. Gough.

The following visiting physicians were present: Drs. N. J. Picket, Milford; W. P. McCall, F. L. Story, A. L. Thomas and Dr. Pastell of Ennis; Z. N. Thornton, Forreston; R. L. Hall, Italy; C. W. McBurnett and S. L. Wadley of Palmer and A. T. Hampton of Ferris.

After the business of the society had been transacted, a dinner was given at the home of Mrs. L. Keplinger. Mrs. Helen Whitley of Waxahachie and Mrs. A. T. Hampton of Ferris were guests of honor at the dinner.

El Paso County Medical Society met November 23, with 45 members and 10 visitors in attendance.

Dr. Willis W. Waite read a paper on "Syphilitic Aortitis." The paper gave evidence of a large amount of original work on the part of Dr. Waite, and was discussed by Drs. G. Werley, F. P. Miller, S. T. Turner and Major Scott.

Dr. Stephen A. Schuster read an interesting paper on the early history of the "Vienna Clinic" and the work that has been done by that internationally famous organization. Dr. Schuster spent some months at Vienna during the past summer.

Dr. J. M. Richmond gave an interesting talk about his visit to Canadian, English and French clinics and hospitals, during the past summer.

Dr. Leslie M. Smith was elected to membership.

El Paso County Medical Society met November 30, with 26 members and three visitors present.

Drs. Paul Gallagher and E. A. Duncan reported a case of spinal cord tumor located at the third cervical vertebra. A very complete history and physical examination were given. The diagnosis of tumor of the spinal cord at the third or fourth cervical vertebra had been made prior to operation. The operative procedures necessary and the difficulties presented by the operation, were described in detail. This report was discussed by Drs. J. W. Laws, James Vance, Orville Egbert and E. J. Cummins.

Dr. Harry Leigh reported a case of pyelocystitis in a baby four weeks old, in which the temperature ran as high as 105° F. The infection was shown to be due to the colon bacillus, and after running about the course usual in older children, the case ended in recovery.

Dr. James Vance reported the case of a doctor's wife about 35 years of age, who had been sent in for immediate appendectomy. She had been married twelve years and had had seven children and two abortions. Her youngest child was four months old and the patient had had a rather difficult time during this last pregnancy and labor. In June, 1923, she had an attack of severe abdominal pain and temperature, which had been diagnosed appendicitis, and which was followed in three weeks by another

similar attack. Since the birth of her last child she had had repeated attacks which had been diagnosed appendicitis. Upon admission to the hospital the patient was in a greatly dehydrated condition, with a leukocyte count of 18,000 and 83 per cent polys. She was given a proctoclysis, and glucose solution was administered. The examination of the urine was made and radiograms were taken of the kidneys. Two stones were found in the right kidney and one in the left, which were removed at two operations about two weeks apart. The patient made a good recovery. This case was discussed by Drs. Geo. Werley, H. T. Safford, Paul Gallagher, E. J. Cummins and Major Wright.

Dr. Geo. Turner reported a case of actinomycosis of the lungs in a man 38 years of age, who began having attacks of asthma in Chicago, in April, 1925. After visiting various eastern and southern health resorts he arrived in El Paso about the middle of September, at which time he was having frequent paroxysms of asthma which were relieved to some extent by adrenalin. His temperature ran from 99 to 102 degrees F., his leukocyte count was between 12,000 and 18,000, and the urine was negative on repeated examination. The radiogram showed marked fibrosis of the bronchial tree and an abscess at the base of the right lung. Actinomycotic granules were demonstrated in the sputum. He was put on large doses of sodium iodide, given intravenously, daily, and began to show improvement at once. At the present time, he is free of his paroxysms of asthma, has made a considerable gain in weight, and the abscess in the right lung appears to be clearing up. The granules are no longer demonstrable in the sputum.

Dr. W. S. Sharpe reported a case of postmortem digestion of the stomach in a patient dying of cerebral hemorrhage.

El Paso County Medical Society met December 7, for election of officers and the following were elected for 1926: President, Dr. T. J. McCamant; vice-president, Dr. E. A. Duncan; secretary-treasurer, Dr. Paul McChesney; censors, Dr. E. A. Duncan and Dr. E. J. Cummins; representative of the American Society for the Advancement of Science, Dr. E. C. Prentiss; delegates to State convention, Drs. R. L. Ramey and J. W. Laws; alternates, Drs. R. B. Homan and W. W. Waite.

Falls County Medical Society met December 14 at Marlin.

Dr. J. B. Barnett read a paper on "Osteomyelitis," which was discussed by Dr. J. H. Mitchel of Kosse.

The following officers were elected for the ensuing year: President, Dr. Howard Smith; vice-president, Dr. M. A. Davison; secretary-treasurer, Dr. A. C. Hornbeck; board of censors, Drs. O. L. A. Torbett, S. S. Munger, F. H. Shaw; committee on legislation and public instruction, Drs. J. W. Torbett, S. P. Rice and N. D. Buie; delegate, Dr. S. P. Rice; alternate, Dr. Fred Aycock of Rosebud.

Grayson County Medical Society met January 5, 1926, at Sherman, with the following members present: Drs. M. C. Murphy, T. W. Crowder, Wilbur Carter, D. C. Enloe, Ross May, J. H. Caraway, J. S. Dimmitt, A. G. Sneed, O. C. Ahlers, M. M. Morrison, A. L. Riding and W. A. Lee.

Dr. J. A. Sneed reported a case of pus appendix, in which the patient, after an apparent recovery, began to hemorrhage from the bowels. The condition was found to be one of intestinal purpura, and was cleared up by the administration of calcium salts.

Dr. Wilbur Carter reported a case of retinitis with a vision of 20/50 in both eyes, that cleared up promptly after removal of the tonsils.

Dr. A. L. Riding reported the case of a boy 17 years of age, who was extremely nervous and emaciated. No improvement followed circumcision and tonsillectomy. There was pus in the urine and x-ray plates showed two large stones in the bladder. Prompt recovery followed the removal of the stones.

Dr. A. L. Riding reported another case, in which a girl 12 years of age fell and hurt her hip. She could walk with a limp and a fracture was suspected, but an x-ray examination was refused at the time. Three weeks afterward, an x-ray examination showed a fracture of the neck of the femur with partial destruction of the head of the femur, from a cyst formation.

Max C. Murphy, D. D. S., read a splendid paper on "Oral Sepsis and Its Relation to Systemic Disease." He stressed the point that dental caries and pyorrhea were not nearly such important factors as alveolar abscesses, inasmuch as the former usually have free drainage and are easily diagnosed, while the latter are more or less obscure, give few subjective symptoms and have no natural drainage.

Dr. D. C. Enloe read a paper on "Resuscitation from Electrical Shock." He described the Schaefer method of artificial respiration and reported several cases of resuscitation from this method, which had been thought hopeless. This paper was discussed by Drs. M. M. Morrison, A. G. Sneed, W. A. Lee and C. A. Strather.

A motion was carried that the meetings of the society be held alternately in Sherman and Denison, unless a special invitation was received from some other town in the county.

Dr. K. A. Strather was elected to membership.

The following officers were elected for 1926: President, Dr. O. C. Ahlers of Sherman; vice-president, Dr. A. G. Sneed of Denison; secretary-treasurer, Dr. W. A. Lee of Denison (re-elected); censors, Drs. Geo. F. Brown and D. C. Enloe of Sherman.

Hale-Floyd-Briscoe-Swisher County Medical Society met at Plainview, December 16, at which time the following officers were elected for 1926: President, Dr. J. E. Crawford of Tulia; vice-president, Dr. J. C. Anderson of Plainview; secretary-treasurer, Dr. E. O. Nichols of Plainview; censor, Dr. S. J. Underwood of Hale Center; delegate, Dr. C. C. Gidney of Plainview; alternate, Dr. E. F. McClendon of Plainview.

The following Committee on Public Health Legislation was appointed by the president: Drs. C. C. Gidney and E. O. Nichols of Plainview, and N. E. Greer of Lockney.

Hardeman-Cottle County Medical Society met at Quanah, December 10, at which time the following officers were elected for the ensuing year: President, Dr. J. J. Hanna, Quanah; vice-president, Dr. W. J. McGowan, Paducah; secretary-treasurer, Dr. J. M. George, Quanah; delegate, Dr. J. T. Horton, Paducah; alternate, Dr. T. D. Frizzell, Quanah.

Harris County Medical Society met November 21, with 45 members present.

Dr. B. T. Vanzant reported a case of Hemophilia.

Dr. Thomas H. Compere read a paper on "Blood-Pressure Readings As a Safety Factor in Operations, which was discussed by Drs. P. R. Denman, C. W. Hoeflick, Wm. Lapat and F. J. Slataper.

Dr. A. Philo Howard read a paper on "Some Fracture Cases (lantern slide demonstration), which was discussed by Drs. J. R. Bost and York.

Harris County Medical Society met November 28, with 53 physicians present.

Dr. Ralph Truitt made an address on "Child Guidance in Mental Hygiene."

The report of the board of directors was read, which included among other items the following

resolution, which was approved by the society: "Whereas the staffs of the different hospitals in the city are from time to time passing rules and regulations affecting the members of this society;

Be it resolved that the board of directors recommend that the Hospital Committee pay particular attention to these rules during the next year in order to protect the natural and inherent rights of the individual member of this society."

The sixth paragraph of the report of the board of directors read: "In reference to the letter of Dr. C. M. Rosser, president of the State Medical Association, of November 26, 1925, the board of directors recommend that we reaffirm our previous position in regard to the inadvisability of taking any action as a society, in regard to enforcement of the Medical Practice Act." This paragraph was discussed by Drs. John T. Moore, W. B. Thorning, E. F. Cook and A. E. Greer. The recommendations of the board of directors were approved by a rising vote of 21 to 14.

Harris County Medical Society met December 5, with 48 physicians present.

Dr. Wm. Strozier reported a case of post-nasal diphtheria.

Dr. W. G. Bryan reported a case of laryngeal diphtheria.

Dr. L. W. Raney in discussing Dr. Bryan's case, stated that he had recently seen three cases of diphtheria.

Dr. M. A. Gantt reported a case of dengue.

Dr. P. R. Denman read a paper on "The Toxicity of Novocaine in Regional Anesthesia," which was discussed by Drs. E. W. Bertner, T. H. Compere, S. C. Red, Wm. Lapat, Wm. Strozier, John L. White, John T. Moore, G. Harolde Turner and A. H. Flickwir.

Dr. S. A. David read a paper on "Congenital Dislocation of Hip," which was discussed by Drs. J. R. Bost, S. C. Red and W. G. Bryan.

Harris County Medical Society met December 12, with 41 physicians present.

Dr. I. L. Pawelek reported a case of congenital absence of the uterus, which was discussed by Dr. H. L. D. Kirkham.

Dr. Wm. Toland read a paper on "Surgical Replacement of the Uterus," which was discussed by Drs. James A. Hill, J. E. Hodges and E. W. Bertner.

Dr. Norma Israel read a paper on "The Fluid Interchange in the Living Human Eye," which was discussed by Drs. L. Daily, Wm. Lapat, F. J. Slataper, S. A. Looper and J. F. Gamble.

Harrison County Medical Society met at Marshall, December 22, with a large attendance. A committee composed of Drs. Theo Dorsett, W. H. Bennett, Jack Baldwin and Richard Granbery was appointed to take charge of arrangements for the meeting of the Tri-State Medical Society at Marshall, January 20-21.

The following officers were elected for 1926: President, Dr. G. P. Rains; vice-president, Dr. W. H. Bennett; secretary-treasurer, Dr. R. G. Granbery; censor, Dr. J. A. Moore; delegate, Dr. Rogers Cocke, all of Marshall, and Dr. L. A. Colquitt of Waskom, alternate.

Hill County Medical Society met at Hillsboro, December 12, with a large attendance.

Dr. Guy D. Witt of Dallas read a paper on "Nervous Diseases."

Dr. Charles W. Barrier of Fort Worth read a paper on "Heart Diseases."

The election of officers was then proceeded with, and the following were elected for 1926: President, Dr. F. D. Sims of Abbott; vice-president, Dr. W. W. Lowrey of Hillsboro; secretary-treasurer, Dr. C. A. Garrett of Hillsboro (re-elected); delegate, Dr. Ben C. Smith of Hillsboro.

Hunt County Medical Society met at Greenville December 15, and the following officers were elected for 1926: President, Dr. C. T. Bradford of Commerce; vice-president, Dr. W. C. Morrow of Greenville; secretary-treasurer, Dr. J. J. Handley of Greenville (re-elected); censor, Dr. H. E. King, Greenville; delegate, Dr. J. W. Ward, Greenville; alternate, Dr. P. W. Pearson of Emory.

The Woman's Auxiliary served a delightful banquet to the society and its guests in the basement of the Kavanaugh Church. Mrs. M. L. Wilbanks directed a program of music and readings. Among other enjoyable numbers were a solo by Mrs. Lockie Marshal Pyle, a reading by Mrs. L. B. England of Commerce, and a piano solo by Lynn Harrell.

Dr. H. W. Maier was toastmaster at the banquet, and humorous addresses were made by Drs. Bradford, Whitten, Pearson of Emory and A. I. Folsom of Dallas. Mrs. Dickens evoked a tumultuous applause by her message of "The Doctor's Wife."

Jefferson County Medical Society met December 7, at Beaumont, with approximately 50 members and several visitors present.

The following officers were elected for 1926: President, Dr. A. R. Autrey, Port Arthur; vice-president, Dr. R. L. Kimmins, Beaumont; secretary-treasurer, Dr. Wm. A. Smith, Beaumont; censors, Drs. H. D. Harlan, E. D. Ellis and B. P. Holland, all of Beaumont; delegate, Dr. J. B. Swonger, Beaumont; alternate, Dr. H. E. Alexander, Beaumont.

A delightful banquet was served at the Peacock Inn. At each plate was placed a pamphlet published by the American Medical Association, entitled, "A Manual of Suggestions for the Conduct of Periodic Examinations of Apparently Healthy Persons," which were given with the compliments of the retiring president, Dr. Drew McMickin.

Dr. W. F. Thomson was called upon by Dr. McMicken to explain the purpose of the distribution of the pamphlets, which he did in a brief address. Among other things he advised the physicians to practice what they preach, by themselves undergoing thorough periodic examinations at the hands of their fellow practitioners.

Navarro County Medical Society met at Corsicana, December 7, with 32 members in attendance.

Dr. R. B. Alexander of Waco read a paper on "Empyema," which was discussed by Dr. W. Cross of Corsicana.

Dr. Howard Smith of Marlin read a paper on "The Surgical Aspect of Sciatica," which was liberally discussed.

The following officers were then elected for the ensuing year: President, Dr. J. Wilson David of Corsicana; vice-president, Dr. Gurley Sanders of Kerens; secretary-treasurer, Dr. Wm. K. Logsdon of Corsicana; censor, Dr. E. H. Newton of Corsicana; delegate, Dr. W. D. Cross of Corsicana.

Nolan County Medical Society met at Sweetwater, December 7, at which time the following officers were elected for 1926: President, Dr. A. H. Fortner; vice-president, Dr. Robert R. Allen; secretary-treasurer, Dr. C. L. Monk; censor, Dr. C. D. Lindley; delegate, Dr. A. A. Chapman, and alternate, Dr. G. Burton Fain, all of Sweetwater.

Nolan County Medical Society met at Sweetwater December 8, and the following officers were elected for 1926: President, Dr. A. H. Fortner; vice-president, Dr. R. R. Allen; secretary-treasurer, Dr. C. L. Monk; delegate, Dr. A. A. Chapman, all of Sweetwater.

Preceding the election of officers, a very enjoyable banquet was held at the Hotel Wright.

Potter County Medical Society met December 7, at Amarillo, and the following officers were elected for the new year: President, Dr. Richard Keys,

Amarillo; vice-president, Dr. S. P. Vineyard, Amarillo; second vice-president, Dr. L. E. Petty, Panhandle; secretary-treasurer, Dr. D. S. Marsalis, Amarillo; delegate, Dr. A. J. Caldwell, Amarillo; alternate, Dr. G. T. Vineyard, Amarillo; censor, Dr. Guy Owens, Amarillo.

Smith County Medical Society met at Tyler December 8, and the following officers for 1926 were elected: President, Dr. A. Woldert; vice-president, Dr. E. H. Vaughan; secretary-treasurer, Dr. J. M. Griffith (re-elected); censors, Drs. E. W. Claywater, E. D. Rice and D. B. Braly, all of Tyler.

Stephens County Medical Society met at Breckenridge, December 3, at which time the following scientific program was rendered:

"Preparation of Difficult Surgical Cases for Operation," Dr. J. Spencer Davis, Dallas; "Fracture of the Femur," Dr. E. L. Graham, Cisco; "Fracture of the Forearm," Dr. Chas. F. Clayton, Fort Worth; "Suspecting Active Pulmonary Tuberculosis," Dr. John Potts, Fort Worth; "Renal Sand and Hydronephrosis," Dr. H. McKnight, Fort Worth.

The annual banquet and ball was held at the Breckenridge Country Club and was a very enjoyable affair.

Tarrant County Medical Society met December 1, with 75 members present.

Dr. Sidney Wilson made a report as chairman of the entertainment committee for the North Texas Medical Association. A motion was carried that the society unanimously endorse Mr. J. C. Duvall as candidate for representative to the State Legislature at the next election.

Dr. Will S. Horn, chairman of the Committee on Public Education, made a report for the committee.

Dr. C. F. Clayton announced that the contract had been let for the excavation of the Medical Arts Building, and that a formal ground-breaking ceremony would be held Saturday, December 5.

The following officers were then elected for 1926: President, Dr. T. L. Goodman; vice-president, Dr. R. W. McKean; secretary-treasurer, Dr. R. J. White; censor, Dr. J. M. Givens; delegate, Dr. C. F. Clayton; alternate, Dr. S. A. Woodward.

Tarrant County Medical Society met December 15, in regular session.

The various standing committees made annual reports, which were adopted by the society.

A communication from Hon. Lee P. Pierson, asking the members of the society for their support of his candidacy for judge of the Court of Criminal Appeals of Texas. Dr. Holman Taylor highly recommended Mr. Pierson for his untiring work in behalf of the State Medical Association in the present campaign against illegal practitioners. Mr. Pierson's communication was referred to the Legislative Committee.

The newly elected officers were then introduced and Dr. Tom S. Goodman, the incoming president, took the chair and outlined some of his policies for the ensuing year.

Tom Green County Medical Society met at San Angelo, December 7, with the following members present: Drs. H. K. Hinde, C. T. Keyes, Geo. W. Nibling, Julian H. Herndon, David L. Hess, Herbert R. Wardlaw, John M. Williams, Wm. F. Chambers, Charles E. Mays, Henry P. Rush, Jos. B. McKnight, A. W. Clayton, Geo. L. Lewis, Thos. D. Shotts, W. W. Cobb, Clifford T. Womack, Jesse S. Hixson, A. C. DeLong and J. P. McAnulty.

The cashier of the Guaranty Bond Bank, Mr. M. P. Dalton, read a paper on "The Doctor and His Finances." He said in part that fifty per cent of physicians' losses were avoidable, and that the physician had a perfect right to demand security for his services in the same way that other businesses do.

After Mr. Dalton's address a banquet was served in the dining room of the St. Angelus Hotel.

After the banquet, the following officers were elected for 1926: President, Dr. J. B. McKnight, Sanatorium; vice-president, Dr. J. P. McAnulty, San Angelo; secretary, Dr. C. T. Womack, San Angelo; treasurer, Dr. W. W. Cobb, San Angelo; censors, Drs. H. R. Wardlaw and J. S. Hixson, San Angelo; delegate, Dr. A. C. DeLong, San Angelo; alternate, Dr. H. R. Wardlaw.

Dr. Joe Dildy, councilor for the fourth district, made a talk on the publicity campaign. He urged the county society not to let up in the campaign as it was just getting started in a great many places, especially in the larger cities.

Dr. J. B. McKnight extended an invitation to the society to meet at Sanatorium some time in the near future, and Dr. Herndon of Miles also extended an invitation to the society to meet in his town some time during the winter.

Travis County Medical Society met December 22 at Austin, and after their annual banquet at the Driskill Hotel, the following officers were elected for the new year: President, Dr. Dalton Richardson; vice-president, Dr. Will E. Watt; secretary-treasurer, Dr. M. F. Kreisle; delegate, Dr. A. F. Beverly; alternate, Dr. Morris Boerner; censor, Dr. R. E. Cloud, (Drs. Beverly and Watt were retained on the Board of Censors), all of Austin.

Van Zandt County Medical Society met at Canton, Texas, December 4, with seven members and two visitors present.

Dr. J. L. Garland of Grand Saline reported a case of dermatitis factitia.

The following papers were read: "Suggestive Therapeutics," Dr. V. Bascom Cozby of Grand Saline; "Caudal Anaesthesia," Dr. John W. Neeley of Terrell; "Seborrheic Dermatitis, Diagnosis and Treatment," Dr. D. Leon Sanders of Wills Point. All of these papers were freely discussed.

The following officers for 1926 were then elected: President, Dr. Felix V. Bryant of Martins Mill (re-elected); vice-president, Dr. Horace H. Hilliard of Canton; secretary-treasurer, Dr. D. Leon Sanders of Wills Point (re-elected); board of censors, Drs. Marion L. Cox of Canton, V. Bascom Cozby of Grand Saline, and W. L. Garland of Grand Saline; committee on public health and legislation, Drs. Leonard W. Shoemaker of Canton, Andrew J. Kellam of Canton and Ben B. Brandon of Edgewood; delegate, Dr. D. Leon Sanders; alternate, Dr. V. Bascom Cozby.

The time and place of meetings was set as 2 p. m. the first Friday in each month at Canton, Texas.

Walker County Medical Society met December 9, at Huntsville.

A resolution was adopted, expressing the appreciation of the society to the Hon. Joseph F. Henson, county attorney, for his faithful service to the community and county in upholding and enforcing the Medical Practice Act.

The following officers were elected for 1926: President, Dr. L. H. Bush; vice-president, Dr. J. R. Martin; secretary, Dr. J. W. Thomason; censors, Drs. H. S. Robertson, W. E. Fowler and L. H. Bush; delegates, Drs. Robertson and Fowler; committee on public health and legislation, Drs. Robertson, Barnes and Martin, all of Huntsville.

Washington County Medical Society met December 24 at Brenham and elected the following officers for 1926: President, Dr. O. S. Moore of Burton; vice-president, Dr. R. A. Hasskarl of Brenham; secretary, Dr. Arthur Becker of Brenham (re-elected);

delegate, Dr. Luther Kusch of Gay Hill; alternate, Dr. O. F. Schoenvogel of Brenham; censors, Drs. R. A. Hasskarl, W. A. Knolle of Brenham, and Luther Kusch.

Wilbarger County Medical Society met at Vernon December 31, and the following officers were elected for 1926: President, Dr. J. E. Dodson; vice-president, Dr. Frank Wilson; secretary-treasurer, Dr. A. C. Rogers (re-elected); delegate, Dr. Howard Roger, all of Vernon; censors, Dr. M. J. Moore, Vernon, and J. C. King of Harrold.

Williamson County Medical Society met December 9, 1925, with the following physicians in attendance: Members, Drs. Y. F. Hopkins, Ed Doak, J. H. Vaughan, W. L. Helms and J. J. Johns of Taylor; A. Howell of Burnet; J. F. Flinn of Hutto; C. C. Foster of Granger; W. C. Wedemeyer of Walburg; G. W. Stevens and Miller of Leander; Walter Martin, J. R. Martin and W. G. Pettus of Georgetown. Visiting physicians present were: Drs. J. C. Thomas of Austin, and Williams of Burnet.

A delicious repast was given at Edward's Cafe to the members of the society by the Georgetown physicians.

Interesting clinical cases were reported by Drs. J. C. Thomas, J. H. Vaughan, W. L. Helms, Ed. Doak and A. Howell.

Election of officers was then proceeded with and the following were elected for 1926: President, Dr. G. D. Ross of Liberty Hill; vice-president, Dr. Walter Martin of Georgetown; secretary-treasurer, Dr. W. G. Pettus of Georgetown (re-elected).

North Texas Medical Association met at Fort Worth, December 8-9, in the Crystal ball room of the Texas Hotel. Fifty members were present when the meeting was called to order by the president, Dr. J. H. McLean, of Fort Worth, and one hundred and ninety members registered during the two days of the meeting.

Dr. C. F. Clayton, president of the Tarrant County Medical Society, delivered a brief address of welcome, which was responded to by Dr. J. H. McLean. The following scientific program was then rendered: "Bilateral Fracture of Patella," Dr. R. J. White of Fort Worth, discussed by Drs. C. F. Clayton, Jack Daley and W. P. McCall; "Post-operative Treatment of Laporotomy," Dr. H. I. Stout of Sherman, discussed by Drs. H. F. Leach, J. T. Watson, S. C. Richardson, D. M. Higgins, Will Cantrell and I. L. VanZandt; "Pruritis Ani," Dr. E. V. Dickey of Dallas, discussed by Drs. W. M. Coke, J. T. Watson and Curtice Rosser; "Symposium on Diseases of the Thyroid (a), Pathology," Dr. Chas. W. Barrier of Fort Worth, (b) "Radiation," Dr. C. L. Martin of Dallas, (c) "Medicine," Dr. K. H. Beall of Fort Worth, (d) "Surgery," Dr. G. D. Mahon of Dallas, discussed by Drs. D. M. Higgins, J. M. Martin, M. E. Lott, M. S. Seeley, J. W. Neeley, C. L. Martin, C. W. Barrier and G. D. Mahon; "Acute Mastitis During the Puerperium Subsequent to Respiratory Infections," Dr. C. R. Hannah of Dallas, discussed by Drs. G. V. Morton and W. G. Harris; "Malignancy of the Kidney," Dr. F. L. Snyder of Fort Worth, discussed by Drs. Ragworth Williams and C. H. Harris; "Splenectomy as a Cure for Purpura Hemorrhagica," Dr. E. H. Bursey of Fort Worth, discussed by Dr. C. H. Harris; "*X*-Ray in Treatment of Keloids," Dr. Tom Bond of Fort Worth, discussed by Drs. R. H. Milwee, C. L. Martin and X. R. Hyde; "Syphilides" (lantern demonstration and discussion), Dr. Porter Brown of Fort Worth, discussed by Drs. Sidney Wilson, T. J. Calhoun and Bedford Shelmire; "Health Examinations—An Asset," Dr. O. B. Kiel of Wichita Falls, discussed by Dr. Chas. McCollum; "Diabetes in Children," Dr. Jeff Spivy of Fort Worth, discussed by Dr. Ramsey Moore; "Consumption — Observations and Treatment," Dr. M. M. Morrison of Denison, discussed by Drs. K. H. Beall and Harold Freed; "Septic Osteomyelitis," Dr. G. B. Thayer of Gainesville, discussed by Drs. A. L. Roberts and C. F. Clayton; "Intestinal Parasites," Dr. Truman Terrell of Fort Worth, discussed by Dr. Will S. Horn; "Early Symptoms of Insanity," Dr. F. S. White of Wichita Falls, discussed by Drs. A. Swenkenburg, Guy Witt and W. L. Allison; "Cardiovascular-Renal Disease, a Growing Menace," Dr. L. H. Reeves of Fort Worth; "The General Practitioner and the Heart Patient," Dr. C. M. Grigsby of Dallas, discussed by Drs. Chas. W. Barrier and W. Y. Ward; "Problem of Teeth," Dr. W. S. Barcus of Fort Worth, discussed by Dr. A. W. Hiller, dentist; "The Menace of Pseudo-Medicine," Dr. Wm. Y. Ward of Ivanhoe; "The Re-education of the Rest Cure Patient," Dr. H. M. Winans of Dallas; "Some Therapeutic Myths," Dr. Jno. R. Lehman of Dallas.

The visiting members of the association were entertained by a theatre party at the Ritz Theatre, given in their honor by the Tarrant County Medical Society. A luncheon was served during the second day of the meeting at the Texas Hotel, which was given by the Tarrant County Medical Society in honor of their guests of the association. During the luncheon, addresses were given by Dr. C. M. Rosser, president of the State Medical Association of Texas, Dr. A. B. Small of Dallas, councilor of the fourteenth district, and by Judge Hal Lattimore of the forty-eighth district court of Fort Worth.

The visiting ladies were elaborately entertained by the Women's Auxiliary of Tarrant County Medical Society.

Resolutions of sympathy on the death of members of the association during the past year, were adopted.

The election of officers was then proceeded with and the following were elected for 1926: President, Dr. D. M. Higgins of Gainesville; vice-president, Dr. P. J. Fullingim of Decatur; secretary-treasurer, Dr. Will S. Horn of Fort Worth (re-elected).

CHANGES OF ADDRESS.

Dr. Wm. E. Marshall, from Needville to Baytown.
Dr. O. W. Ross, from Krum to Dallas.
Dr. E. J. Burns, from Belton to Munday.
Dr. Conrad Frey, from Hamilton to Melvin.
Dr. W. H. Forrester, from Klondike to Pecan Gap.
Dr. O. M. Tinsley, from Conroe to Houston.
Dr. C. V. Nichols, from Meridian to Richmond.
Dr. Addison L. Lincecum, from Hale Center to El Campo.
Dr. L. A. Barber, from Fort Worth to Dundee.
Dr. F. P. Peyton, from Teague to Mexia.
Dr. C. F. Osborne, from Waco to Hillsboro.
Dr. Preston Worley, from Sinton to San Antonio.
Dr. Frederick Frueholz, from Nordheim to New Braunfels.

DEATHS

Dr. **Eren Daffin Hodges** died November 19, 1925, at the Base Hospital at Fort Sam Houston, Texas, after a prolonged illness.

Dr. Hodges was born August 16, 1888, at Lott, Texas. He received his degree in medicine from the medical department of Texas Christian University at Fort Worth in June, 1914. After graduation he moved to Waco where he practiced until July, 1917, when he entered the service of his country as first lieutenant in Ambulance Company 359, 90th Division. He was later promoted to captain, and

he received a citation for gallantry in action in the Meuse-Argonne offensive where he remained on constant duty on one occasion for eleven days and nights. He was discharged from the service in July, 1919, and began the practice of medicine at Ranger, Texas. His health broke down in October, 1921, and he was sent to the Base Hospital at Fort Sam Houston, Texas, where he remained until the time of his

DR. ERIN D. HODGES.

death. Dr. Hodges had been a faithful member of McLennan County Medical Society and later of Eastland County Medical Society, up to the time that his health forced him to retire from practice. He was also a member of the State Medical Association of Texas and of the American Medical Association. He leaves many staunch friends, both in and out of the profession. He was a 32nd degree Mason, a Shriner and an Elk.

Dr. Hodges was married to Miss Louise Napier of Waco, Texas, on December 8, 1917, who survives him. He is also survived by his mother, five sisters and four brothers.

Dr. E. B. Mouser died at his home at Electra, Texas, December 2, 1925.

Dr. Mouser was born in Dallas County in 1875. He graduated from Texas A. & M. College in 1895, and took his degree in medicine at the University of Louisville School of Medicine in 1898. Returning to Texas he began the practice of medicine at Duncanville, moving to Grand Prairie and from there, a year later, to Reinhart. After practicing two years at the latter place he located at Electra where he practiced up to the time of his death. He very early affiliated himself with his County Medical Society and the State Medical Association of Texas. He was local surgeon for the Fort Worth and Denver City Railway at Electra. He was a member of the Knights of Pythias and of the Woodmen of the World. Dr. Mouser was also very active in civic affairs and served a term as mayor of Electra.

Dr. Mouser is survived by his widow and four sons, all of whom live at Electra, and by three brothers and two sisters of Dallas, Texas.

Dr. Rodney M. Neathery died November 8, 1925, at his home in Farmersville, Texas, from a cerebral hemorrhage.

Dr. Neathery was born May 3, 1866, and was a son of the late Dr. A. H. Neathery, one of Collin County's pioneer physicians. He entered upon the study of medicine at an early age, receiving his M. D. degree from Vanderbilt University in 1887. After graduation he returned to his home town to practice, where he achieved quite a reputation as a diagnostician. He was an untiring student and kept abreast of the times by frequent attendance upon postgraduates courses in medicine conducted by doctors of world-wide reputation. Among other postgraduate courses attended were several at Tulane University at New Orleans. He had long been a willing worker in the Collin County Medical Society and the State Medical Association of Texas. He was also a member of the American Medical Association. He had served the Gulf, Colorado & Santa

DR. RODNEY M. NEATHERY.

Fe railway as a local surgeon for nearly thirty years at the time of his death.

He was married to Miss Ida Lee Jackson, who died a few years after her marriage. To this union was born one daughter, Mrs. Grace Wilcoxson, of Dallas. In 1894 Dr. Neathery was married to Miss Willie Melton of McKinney, to which union was born a daughter, Mrs. Ernest N. Reichardt, of Brenham, Texas. Dr. Neathery is survived by his widow and two daughters; by his brothers, J. W., Daniel and Wesley Neathery of Farmersville; Steve Neathery of Haskell, Will Neathery of Roswell, New Mexico,

and Sam Neathery of McKinney, and by two sisters, Mrs. L. E. Bumpass of Terrell, and Miss Hattie Neathery of Farmersville, all of whom were present at the funeral.

Funeral services were held at the family residence, being conducted by his pastor, Rev. K. L. Chapman, of the Baptist Church, assisted by Rev. W. A. Edwards, of Dallas. The interment took place in the Odd Fellows' Cemetery and the large number of friends who attended the service, many of whom were from out of town, attested to the love and respect with which he was regarded.

BOOK NOTES

A Manual of Gynecology. By John C. Hirst, M. D., F. A. C. S., Associate in Obstetrics, University of Pennsylvania. Second Edition, Revised. 12mo., cloth, 508 pages, 195 illustrations. Price $3.50 net. W. B. Saunders Company, Philadelphia and London, 1925.

This Second Edition of Dr. Hirst's excellent work has been thoroughly revised and the subject matter brought up to date. The entire book has been reset, many illustrations added, and some 40 pages of material have been included. Among the more important additions are the Rubin test for sterility and chapters on cystoscopy and pyelography and the technique for use of radium in its various fields and for diathermy in gonorrheal endocervicitis. Ovarian cysts have been re-classified and much new material has been added on endocrine therapy, granuloma inguinale, backache, and foreign protein injections. Important additions have been made to the chapters on operative technique and post-operative complications. In spite of the additions and revisions, the book is still a comparatively small one and remains what the author intended it to be, a practical manual of gynecology for the student and busy practitioner.

Physiotherapy—Theory and Clinical Application. By Harry Eaton Stewart, M. D., President-elect American Academy of Physiotherapy, Attending Specialist in Physiotherapy, U. S. Marine Hospitals, New York, etc. 8vo., cloth, 351 pages, 66 illustrations. Price $7.50 net. Paul B. Hoeber, Inc., Publishers, New York City.

The increasing importance attached to physiotherapy in the treatment of diseases finds its recognition in many of the chairs of some of our leading institutions. The author states in his preface that he does not in any way believe that physiotherapy should displace other scientific treatments," but he feels that it is an invaluable adjunct to other methods of treatment, and is one that has not yet received its deserved recognition in scientific therapeutics." Only those measures are included that the author believes to be of unquestioned merit. Various apparatus for the administration of the different modalities are described in detail and also the methods of administration. In addition, there are chapters on Phototherapy, Actinotherapy, Thermotherapy, Massage, Exercise, and Hydrotherapy. The second part of the volume is entitled "Clinical Application," and the ten chapters into which this part of the volume is divided, deal with the special application of physiotherapy to certain clinical entities. The book is well written and the many excellent illustrations add materially to the value of the work.

Parasitology—For Medical Students. By Alex Mills Kennedy, M. D., Professor of Medicine, University of Wales, National Director of the Medical Unit, Welsh National School of Medicine, etc., 12mo., cloth, 142 pages, profusely illustrated. Price $3.00. American Branch, Oxford University Press, New York City.

This work is of a rather elementary character and not in any sense a complete discussion of parasitology. Many of the outstanding representatives of the different orders of parasites that attack the human being, are briefly described. The illustrations are for the most part very good. There are some very conspicuous omissions which undoubtedly impair the usefulness of the book. The book might be suitable for the pre-medical student, but is hardly complete enough to be used as a textbook on parasitology in a medical school.

A Compend of Diseases of the Skin. By Jay Frank Schamberg, A. B., M. D., Professor of Dermatology and Syphilology, Graduate School of Medicine, University of Pennsylvania, etc. Seventh Edition, Revised and Enlarged. 12mo., cloth, 316 pages, 119 illustrations. Price $2.00. P. Blakiston's Son & Co., Philadelphia.

The present edition of this well-known compend on dermatology has been thoroughly revised. Especially is this true in the case of the treatment of syphilis. The illustrations are good and well chosen, which is of utmost importance in any text on skin diseases. The rarer diseases are omitted in order to permit of a more complete discussion of the skin diseases most commonly encountered in actual practice.

Development of Our Knowledge of Tuberculosis. By Lawrence F. Flick, M. D., LL. D., Co-Founder of the Rush Hospital for Diseases of the Chest, the Free Hospital for Poor Consumptives, and White Haven Sanatorium Association, Etc., Author of The Crusade Against Tuberculosis—Consumption a Curable and Preventable Disease. 8vo., cloth, 783 pages, 25 chapters. Price $7.50, net. Publisher, Lawrence F. Flick, 738 Pine street, Philadelphia.

This historical treatise on the development of our knowledge concerning tuberculosis goes back to the earliest writings in which the disease is mentioned. Quotations are given from the Code of Hammurabi, written about 2250 B. C., and from the writings of the Egyptians, the Chinese and the Hindus, as well as frequent quotations from the Hebrew Old Testament. Many detailed descriptions of the disease as found in the writings of the Greeks and Romans are cited. The fifth chapter spans the gap between the second and seventeenth centuries, during which little progress was made in the study of tuberculosis or, in fact, in the general advancement of knowledge. From the seventeenth century on, extensive quotations from the outstanding students of medicine of their day are given, until when the twenty-fourth chapter is reached, the importance of the discovery of the tubercle bacillus and the profound influence that this discovery had, not only upon the study of tuberculosis, but upon medicine in general, is described. The last chapter in the book is devoted to the development of tuberculin, and to the controversy concerning the distinction between the human and the bovine tubercle bacillus. The volume closes with extensive quotations from reports of various tuberculosis commissions, which brings the book down to the twentieth century. In the concluding paragraph of the book the author indicates his intention of writing a companion volume on the development of our knowledge of tuberculosis during the twentieth century. This work should prove a valuable source of information in the study of tuberculosis from an historical standpoint.

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

The Publicity and Enforcement Campaign Continues.—We have concluded that our readers are in all probability surfeited on discussions of our Publicity and Enforcement Campaign, and are consequently at present saying very little in regard to this important matter. Suffice it to say at this time, that the campaign continues with the utmost vigor and with the anticipated degree of success. We are apt to become excited about any situation in a campaign of this sort wherein the enemy appears to gain success, no matter how limited. Old campaigners understand this psychology and are not disturbed. We feel that we should refer to this matter at this time, not because there is any danger that our members will develop any hurtful degree of timidity in the premises, but as a matter of encouragement to those who are not experienced campaigners. Success in prosecutions has really been greater than had been anticipated, notwithstanding there have been several failures to convict in cases that have gone to court. The big idea is, to show both the offender against our very excellent and necessary Medical Practice Act, and the lay public, that we mean business and that so long as the law remains on the statute books we propose to see that offenders against it are prosecuted, if we can influence the prosecuting authorities.

If the public can be made to understand the advisability, if not the necessity, of requiring that all health matters, including prevention and cure of disease, be placed in the hands of educated practitioners, the offender against the Medical Practice Act will go. If this cannot be done, the public will simply have to pay the price; and, after all, the medical profession will be the gainer, if it can be called a gain to profit at the expense of the sick public. The medical profession occupies a position of independence in such matters as this. If the people want to be sick and support the medical profession, including the quacks, by paying doctors' bills, that will be one kind of support. If the people want to keep well and are willing to pay the medical profession to attend to that little matter, that is all well and good, and is another type of support. It is all purely a matter of idealism with the medical profession. The campaign we are prosecuting will, no doubt, in the long run bring the public to a proper conception of the whole situation, and when that is done the problem will have been solved. In the meantime, it is up to us to keep up the fight. Our leaders are willing to lead, and so far as our observation goes the rank and file is willing to follow, and it appears that there is no present disposition to withdraw from the battle.

At this writing our esteemed President is making public addresses in different sections of the State, and wherever he has discussed this matter with a lay audience there has been a ready response and almost unanimous offer of support. Cases are being prosecuted in the courts throughout the length and breadth of the State, with a rather unexpected degree of success. Where there has been failure to convict there has been almost invariably some very good educational work done, that results beneficially in many particulars. In one community one member of a partnership was on two separate occasions

cleared of the charges made against him, and it would appear that law and order lost in that particular instance. Such is not, in fact, the case. The offending group has broken up and only one is now left in his community —and our information is that he is not prospering greatly. He will, no doubt, be again prosecuted, and quite probably next time with success. The President of our Association is now being sued for criminal libel, because of utterances alleged to have been made in a public address, and the principal allegation is that a chiropractic school has been practically disorganized and made unprofitable. And so the story goes, and will continue to go if we persist in our efforts to have our very excellent Medical Practice Act enforced without fear or favor, which we probably will continue to do. In the meantime, the best service the average doctor can render is to on all occasions defend our efforts to enforce the Medical Practice Act, exactly as he would defend the efforts of good people everywhere to enforce laws against gambling, bootlegging or any other illegal practice. We will get nowhere in this endeavor so long as we feel that we are doing something that we must apologize for. There is nothing selfish in it, and there is nothing, or should be nothing, out of the ordinary in a good citizen desiring to see a law enforced, and particularly a law with which he is most familiar and with the purposes of which he is most in sympathy.

Our New Constitution and By-Laws.—It will be remembered that the House of Delegates at Austin last May adopted a completely revised constitution and by-laws, after a study of two years. These have been printed in pamphlet form and are being sent to county society secretaries for distribution, and for the guidance of all concerned. The delay incurred has been incident to a desire on the part of the State Secretary to observe the new plan in operation for a sufficient time to be in a position to point out the rough places and determine all conflicts in time to have them adjusted by the Board of Councilors before going too far with them. It is believed now that the new constitution and by-laws have been justified, and that conflicts are so few and so unimportant as to make no difference.

It is to be hoped that our members will take an interest in the matter and lose no time in familiarizing themselves with our new laws, and that inquiries and criticisms will be made wherever there is any question as to meaning, or any opportunity for improvement. It is only by such methods that such a complicated instrument as even the most simple constitution and by-laws may be understood and made useful. Elsewhere in this number of the JOURNAL appear discussions by two of our experienced and prominent members, which have been withheld from publication until interest could be directed to the subject and maintained until the next annual session, when any alterations that should be made can be made. We are hopeful that no one will approach the problem with bias, either for or against the present version. The natural limitations of such an instrument should be considered. It is impossible to provide in detail for every contingency. It is equally impossible to express thought in any language that will not be misconstrued. It should be remembered that there are many repetitions, necessarily, and that in order to prevent undue repetition some situations are dealt with in places other than those which the casual reader may consider that they should be. It should be remembered, also, that the State Medical Association carries a charter under the corporation laws of the State of Texas, which is a complication in view of the requirement that corporations so chartered must be managed by a board of directors. Therefore, as a matter of fact, the Board of Trustees constitutes the board of directors and must approve all procedures. Our Board of Trustees has approved the present constitution and by-laws, and we are authorized to proceed accordingly. Therefore, our constitution is justified and our by-laws, based on the constitution, are in order.

Also, it should be considered that our Association is a grouping, nothing more and nothing less, of other organizations—the county societies. For the sake of convenience and in keeping with our state charter

and our constitution, which latter has been approved and put into force by our Board of Trustees (directors); the relationship of the county society to the State Association is discussed in terms such as would be used were there no such thing as a corporation law and our participation therein through our state charter. The State Association having protection under the corporation laws of the state, extends the same privilege to each of its component groups. Whether or not that is legal will have to be determined by the courts. There is a difference of opinion among lawyers, but the preponderance of opinion seems to be that there is no reason why the plan should not be followed. At any rate, it is good until it is declared unconstitutional.

With these general observations we will undertake to discuss some of the outstanding provisions of the new constitution and by-laws, and we desire it distinctly understood that we are doing nothing more than indulging in a discussion, the duty of interpreting the law being that of the Board of Councilors. Our opinions may differ materially from those of some of our readers, which is why we make the observation. We haven't the time to enter into a controversy but will be delighted to hear from our readers and will publish pertient observations that may be made, to the extent that space will permit. There is a Committee on Revision of the Constitution and By-Laws, of which Dr. H. W. Cummings of Hearne, is chairman. This committee will give consideration to and attempt to decide the advisability of any suggestions for amendment that may be made.

In General, the plan is rather comprehensive and yet simple. The name and purposes of the organization remain as before. It is a nonprofit making body and is pledged to unite with similar organizations in supporting the American Medical Association. It proposes to "extend medical knowledge and advance medical science," "elevate the standard of medical education and *secure the enactment and enforcement of just medical laws,*" and "*enlighten and direct public opinion in regard to the great problems of state medicine,*" not to quote the entire preamble. And, we may remark parenthetically, it comes as near carrying out these high purposes as any organization of the sort with which we are acquainted.

The Association consists "of the several component county medical societies duly and constitutionally chartered," and its membership comprises "only those members of said component county societies who have been duly elected; who have been reported to the office of the State Secretary as members, and for whom the State Secretary has received the annual per capita assessment." It has no membership independently of that of county societies. It is a confederation, as a matter of fact. It is controlled by a House of Delegates, which is as near a representative democracy as anything we know about. In this House of Delegates there are representatives of each county medical society of which it is made up, and an *ex-officio* membership comprising certain trusted officials, who have been elected to their official status *by these very delegates.* This law-making body is authorized by the constitution and by-laws, and by the Board of Trustees, under the corporation laws of the State of Texas, to legislate for the Association, and we may observe in passing that it does it, without fear or favor, in spite of some small degree of criticism to the contrary.

The problems of medical ethics and of organization, are dealt with by a Board of Councilors, the decision of which on medical ethics is, in the main, final, and on organization problems advisory and not executive. The business affairs of the organization are in the hands of a Board of Trustees, and the decision of this board on all financial matters is final. It must be so under the corporation laws of the State of Texas, and has for years been true under the constitution of the State Association without any regard to state laws. Indeed, it is believed that it is because of this one provision that our Association has been able to accumulate sufficient funds to make it reasonably independent and cause it to stand out among similar organizations as a pillar of cloud by day and a pillar of fire by night.

Under the new system the Board of Trustees is in a measure held to account in ad-

vance of decision concerning policy, by the requirement that appropriations be made to defray the routine expenses of the Association, and that a tentative budget be submitted for the consideration of the House of Delegates, in advance of the annual session. In this manner a fair degree of control is retained and yet there is that independence so necessary in dealing with the more or less intricate problems of finance, concerning which so few of us are well informed, and particularly where opportunity for study of detail has not been possible. The legal affairs of the Association, including defense of its members who are sued for alleged medical malpractice, are in the hands of a council of five members, which council operates under the direction of this Board of Trustees in all matters except those strictly pertaining to malpractice.

The scientific work of the association is directed by a council of five members, with the officers of scientific sections ex-officio. All proceedings, including those of a scientific nature, are originated by the county society, which is the basic unit of the organization. Business and ethical matters pass up through the Board of Councilors and certain committees, to the House of Delegates. Scientific problems pass up through district societies—which organizations, incidentally, have no other function—to scientific sections or general meetings of the Association, into the JOURNAL.

The President of the Association is the real head of the profession in the State, but he has no function of an executive nature, except insofar as the requirements that he actuate and coördinate the several activities of the Association may be considered as executive. The executive work of the Association is done by employees, who are presumed to be permanently on the job. The President, the President-Elect and the Vice-Presidents, the big men and women of the profession in the State come into office each year, exert their great influence and pass on. Thus it is that the Association is prevented from getting into the proverbial rut and from developing a dry (or wet) rot, as so many organizations of the sort in fact do. It seems to us that no more practical plan could be devised, and certainly in our organization we have struck very near the golden mean. Our committee has developed the plan along the most practical lines that could be devised after two years of intense study and following the advice of those of our members who are experienced not only in our own business but in other and diverse organizations.

In his efforts to coördinate the work of the Association, the President has been furnished a group quite unique in organizations of the sort, the so-called Executive Council, which is the *ex-officio* part of the House of Delegates, and which comprises those agents of the Association who are freighted with the gravest responsibilities outside of the field of legislation. This Council embraces the Committee on Legislation, consisting of five members appointed on an overlapping term basis, and is expected to look after all publicity, legislative and law enforcement endeavors to which the Association is committed. It assumed the function of the discarded Council on Public Health and Legislation, in addition to its other obligations, and the Board of Trustees is required to provide in its budget for these purposes, as directed by the House of Delegates. This group cannot legislate except as set out by the House of Delegates, but it can develop—and it is intended that it should develop—policies decided upon by the House of Delegates, the details of which are necessarily left to some other agency. This proviso has been made in the face of the essential limitations of a legislative body such as our House of Delegates, which meets normally but once a year and then for only three days, during which time it must through temporary expedients study and decide many large questions. Naturally, the House of Delegates cannot be expected to go into the final details, and make fixed and final decisions on all of the questions considered. On the whole, it would seem that the interests of the great group have been as well cared for through the general plan of organization as is possible.

More Specifically, and taking the items as we come to them, the following more or less disjointed observations are made, for what they may be worth:

For the first time in the history of the Association there is more than one kind of membership. County societies may nominate and the House of Delegates elect to honorary membership, those physicians within their respective jurisdictions who are of "honorable standing" and have "contributed notably to the advance of ethical medicine," or who may have "because of age or other laudable reasons, reached a point of comparative inactivity in the practice of medicine or entirely retired therefrom." And when so nominated and elected, these honorary members shall be carried on the roll exactly as are other members, and there is no differentiation, except on the annual report of the county secretary, and then only because of the necessity of accounting for funds.

Only white physicians who are legally registered to practice medicine in Texas, and

who do not hold themselves out as practitioners of sectarian medicine and who subscribe to the Principles of Ethics of the American Medical Association, shall be admitted to membership. There is an exception to the "legally registered" requirement, in favor of medical officers of the federal government, and teachers in "Class A" medical colleges, who are *bona fide* residents of the State and who are not required to register in order to carry out the terms of their employment.

The officers of the Association are practically as before, with duties practically as before, except more specifically laid out and more comprehensively expressed. For the first time a complete succession of responsibilities has been provided for. If the President dies or is removed from office, the President-Elect assumes the position long enough to assemble the Board of Councilors for the purpose of selecting one of the three Vice-President to assume the office of President. If there is no Vice-President to assume the office, the President-Elect serves the balance of the term before taking up his own term. And for the first time the Vice-Presidents have been given specific and important duties and, also for the first time the Vice-Presidents are directed by law to assume the office of President, when selected for that purpose by the Board of Councilors.

The duties of the Secretary have been set out more in detail, with the exception of which they are practically as before. There is hardly any duty to be required of this important official that is not specifically mentioned, which goes a long way toward avoiding embarrassing situations. Likewise, the duties of the Treasurer, the Board of Trustees, the Council on Medical Defense and the Board of Councilors, are set out in great detail. The functions of the House of Delegates and all committees and commissions of the organization, including the scientific sections are also specifically discussed. The scope and duties of county and district societies are also clearly stated. We will refer to some of these more specifically later on.

Annual sessions of the Association are conducted under the new law about as they were before. There are no important changes here, except such as set out more clearly the procedures and boundaries, which are practically in accordance with custom. The House of Delegates fixes the time and place of meeting of the Association, but if this is not done the Executive Council attend to that important matter, instead of the Board of Trustees as heretofore. In this connection, there is a typographical error in the by-laws. Section 1, chapter VI, which chapter is very largely the same as in the old by-laws, delegates this authority to the Board of Trustees. This fact was overlooked in proof-reading. The Board of Trustees comprising an important and perhaps controlling group in the Executive Council, this change was considered wise in several particulars and hurtful in no important particular.

The House of Delegates may meet and, indeed, by resolution is required to meet for this year at least, on the day prior to the opening of the annual session. It may likewise remain in session after the annual session has finally adjourned, but only for the purpose of attending to unfinished business. There has been much complaint that the House of Delegates does not have time for the necessary attention to the important matters before it, and in any instance those who consent to serve as delegates are denied the privileges of the scientific side of the meeting and the pleasures of its social side. It is expected that by meeting in this manner much of the routine work of the House may be disposed of and committees set to work before the session actually begins.

The referendum provisions of the old constitution have been perpetuated without change. Under the provision of these sections, any general meeting of the Association may by a two-thirds vote order a referendum on any question pending in the House of Delegates, and the House of Delegates may refer to the General Session for decision any such question, which is by way of being sauce for both the goose and the gander.

Delegates from county societies must be elected by their respective county societies, and not appointed. This has been a rule all along but rather an indefinite one. It is now clear that no officer or group of members of a county society, may select and send to the State Association meeting a delegate who may or may not represent the whole group.

A majority of the delegates and *ex-officio* members of the House of Delegates, registered at an annual session constitutes a quorum of the House of Delegates. There is a slight conflict between the constitution and the by-laws in this regard, if it is considered that there is a difference between *ex-officio* members of the House and those who are referred to as delegates. The fact that these provisos do not read exactly alike was purely a matter of oversight. It was understood by the committee that they did read alike, and it was intended that a majority of the members of the House of Delegates, whether delegates from county societies or delegates by virtue of their official status, should constitute a quorum.

As before, there can be no change in the

order of exercises and meetings during the annual session, as set forth in the official program, except as ordered by vote of a General Meeting. This is one of the factors responsible for the success of our annual sessions, which are in no sense haphazard affairs. Any member of the Association can go to an annual session and depend upon the program given him for his guidance. It is necessary that something of the sort be done, because of the brevity of time and the importance of the proceedings. A member should be able to pick out his entertainment as he would the merchandise he expects to buy in a department store.

An important change was made in the matter of executive sessions of the House of Delegates. This change came about because of our experience during the San Antonio session, year before last. At that time it was desired to discuss the problems which seemed to call for a considerable increase in dues, under such conditions as would not permit of the discussion reaching the public press, but it was not desired that members be excluded. An executive session was called for, which seemed to be about the only way to keep the proceedings from getting out. An expedient was adopted, whereby only nonmembers of the association would be excluded from the room, and all who remained were pledged to consider the proceedings as confidential. As a matter of fact, there was nothing essentially secret at all likely to be considered, but it was anticipated that much might be said that we would not care to have discussed abroad. We were preparing not only to launch a campaign of publicity but an assault on quacks and medical impostors. So it is now provided that all meetings of the House of Delegates shall be open to all members of the Association, but the authority is granted to exclude all except members at any time, and to require of all who remain the same decorum as is required of members. It is also stated that executive sessions, when ordered, shall serve to exclude only those who are not members or guests of the Association.

A slight change has been made in the matter of county society delegates and alternates. Formerly, a delegate could pass his credentials only to his regularly elected alternate. Now, if the alternate of a delegate cannot attend the annual session, or meeting of the house, he may pass his credentials to some other alternate. This is in keeping with the decision that it must be made doubly sure that delegates have been elected by their whole group; if this has been done, the house does not care who the delegate sent may happen to be or what his views may be.

The grouping of counties in the several councilor districts is now set out in the by-laws, and may be altered by amendment during any annual session. That is a distinct improvement over the old method, wherein the board of councilors recommended that the House of Delegates change counties from one district to another, and depended on their own records or the records of the State Secretary, to keep the districts straight. Under the present arrangements there can be no doubt from year to year just how the districts are made up.

The constitution may be amended by a two-thirds vote of the House of Delegates at any annual session, provided the proposed amendment has been presented in open meeting at a previous session, and then published in the official organ of the Association and sent officially to each component county society at least two months before the annual session at which it is to be amended. A complete revision of the constitution may be accomplished by a two-thirds vote of the House of Delegates at any annual session, provided that such complete revision shall have been adopted in the preceding session and the revised version published in the official organ of the Association not later than approximately three months prior to the annual session in which final vote is to be taken. As before, the whole intention of these provisions is to give the membership an opportunity to anticipate changes in the organic law of the Association. Such provisions were never intended as impedimenta in the matter of revising the organic laws. Indeed, there should be only such impediments as will give the membership an opportunity to express itself.

There has been some discussion of this very matter in connection with the present revision, more or less pertinent. In order to make the present revision regular and according to law, it is necessary to consider that the proceedings of the 1924 annual session, as published in the June JOURNAL of that year, were official notice to county societies that a complete revision of the constitution and by-laws would be made in 1925. The Committee on Revision of Constitution and By-Laws in its 1924 supplementary report, submitted an amendment to the constitution authorizing a complete and total revision "at any regular annual session, notice having been given of such intention in the House of Delegates in a preceding session of the Association." The report submitting this amendment was adopted but, of course, the amendment itself could not be considered as having been adopted until the next annual session had voted upon it. When the revision was under discussion the next year at Aus-

tin, it was erroneously assumed that this amendment had been adopted the year previously. Discovering, through the objection of Dr. Cooke of Houston, that this had not, in fact, been done, proceedings were held up until the amendment was formally produced and adopted. This would make the proceedings regular if it could be considered that the intention of the House of Delegates to totally revise the constitution and by-laws had in fact been announced the year previously. Of course it had, but at the time announced there was no such provision in the constitution. It is well to avoid such contingencies as this, for, as Dr. Cooke well states, it is a serious thing to tamper with the organic laws of any organization. Of course, it is generally conceded that the Association had been put on ample notice and that the purposes of these provisions had been carried out to a degree quite unusual, as a matter of fact. The by-laws may be changed, as heretofore, at any annual session by a majority vote of the House of Delegates, after the amendment has laid on the table for one day.

The business affairs of the Association, strictly speaking, as has already been said, are in the hands of a board of five trustees, elected on an overlapping term basis. This is required by the laws of the State of Texas in addition to our own, but as we have already observed, the requirement existed before we appreciated this fact. The House of Delegates long ago agreed that this should be true, and the Board of Trustees have all along agreed to the management of the Association as per the constitution and by-laws adopted by the House of Delegates. This may be by way of creating an agent greater than the creator, but only in certain particulars; and even so, the creature is under the control of the creator. This is a problem that has been widely debated and for many years; it is, as a matter of fact, pending at the present time. There is room for difference of opinion, of course, both as to principle and detail. Indeed, the committee having in hand the revision of the constitution and by-laws, was for a long time not in agreement on this point. However, it eventually came into unanimous agreement, not only in this but in all other matters about which there had been any difference at all.

The trustees are constitutionally delegated with all authority not otherwise provided for. It is up to the House of Delegates to specifically take out of the hands of the Board of Trustees any matter that it does not consider should reside there.

The House of Delegates decides upon the per capita assessment to be made on component county societies, and then directs the Board of Trustees how the money thus raised shall be distributed into the several funds of the Association. At the present time the assessment is $10.00 and it is divided as follows: Medical defense, $1.00; subscription to the JOURNAL, $2.50, and general fund, $6.50. Of course, the trustees have direct and absolute control of the subscription fee to the JOURNAL, and control under the advice of the House of Delegates, of the general fund. The Council on Medical Defense has charge of the medical defense fund. That is a specific provision, and approved by the Board of Trustees. The trustees may divide the general fund into such parts as it chooses and for the best interests of the Association, and make from this fund the necessary appropriations for the support of the several activities of the Association.

The trustees are required to prepare a tentative budget and submit the same to the House of Delegates at the annual session. The purpose of this provision is, clearly, that the House of Delegates may thus discuss the needs of the Association from a financial standpoint and in the light of the adopted policies of the Association. The trustees are a part and parcel of the new council which has to do with the development of policies and the like, as established by the House of Delegates. We can think of no better way to coördinate our business endeavors. It seems to us that every avenue is properly guarded.

In addition to the requirement that the trustees submit a tentative budget covering all of the activities of the Association, they are specifically required to include in their budget reasonable funds to cover the expenses of the President in complying with the requirements of his office; salaries of the Secretary and Treasurer and other employees of the Association, including the Editor of the JOURNAL; expenses of the councilors in the performance of their duties, and the expenses of the annual sessions. These things *must* be done, at least until the Board of Trustees bring about a change in the present constitution and by-laws, which they must do in accordance with its provisions. It will be borne in mind that the constitution and by-laws, having been adopted by the Board of Trustees, binds that body the same as it does the House of Delegates or any other group in the organization.

The Board of Trustees is authorized to accept donations and bequests and administer the same, either in accordance with the terms of the gifts or, in the absence of any terms, according to its good judgment.

The Scientific Affairs of the Association, also as has already been said, are in the

hands of a council, organized on an overlapping term basis, except for the *ex-officio* part thereof, which latter consists of the President and Secretary of the Association and the officers of the several scientific sections.

The number of papers permissible on the program of each section for each annual session is limited, as follows: "Medicine and Diseases of Children," 25; "Surgery," 25; "Gynecology and Obstetrics," 18; "Eye, Ear, Nose and Throat," 20; "Radiology and Physiotherapy," 18; "Public Health." 20. It is provided that the officers of sections shall defer final decision as to the papers to be accepted for their respective programs until sixty days in advance of the annual session, when they will pick the best offers along the lines directed by the Council on Scientific Work. Those who desire to prepare papers will inform the section officers as soon as possible, giving complete synopses of their proposed contributions, and then go ahead with their papers, reading them before county societies, as provided. When the sections decide what papers will be most available, all concerned are notified. The papers that are not accepted will be available for other uses by their respective authors. It is provided that any member has a perfect right to offer a paper, and his offer shall be given due consideration. It is thus clear that the Council on Scientific Work can thus coördinate the scientific programs of our annual sessions, which is an important matter.

In addition, all committees having charge of the scientific problems are expected to work in coöperation with the Council on Scientific Work, if not under its direct supervision, which will enable the council to extend its efforts of coördination into all of the scientific channels open to the Association. The council may also initiate research or study, and make reports and observations on any scientific matters it chooses. We know of no other organization which makes such definite and consistent efforts at coördination of its scientific endeavors. For instance, the Committee on Scientific Exhibits may be advised to prepare exhibits in keeping with the programs of the scientific sections, which programs have been directed into channels most interesting at the particular time in question. The Committee on Study of Cancer may be informed of the provisions being made by the sections and by the Committee on Scientific Exhibits, along the lines of cancer study and observations, and may guide its own efforts accordingly. This committee, incidentally, might properly operate under either the Executive Council or the Council on Scientific Work. It will probably be directed in the premises by the President, acting as a coördinating officer and the leader in medical and scientific thought for the year.

Perhaps we should say that the rules and regulations covering the preparation and presentation of papers to the scientific sections are about the same as before, with some development and verification. Papers must be offered in time for section officers to decide whether they are appropriate; they must be read before county societies, or in the absence of opportunity to do this, before the district societies of which the authors are members; secretaries must certify that this has been done; no paper that has been published is eligible for presentation in this manner; all papers offered are the pledged property of the Association and become, in fact, the property of the Association at the time they are to be read; papers are to be presented to section secretaries by the time called for, and if the authors are absent they may or may not be read by proxy, in accordance with the desire of the section at the time; all papers, except where specifically agreed to in advance, are published in the JOURNAL, if found worthy of publication; papers must be originals, typed on one side of the sheet only, double spaced, with ample margin and not bound.

The scientific programs of the association are not to be interfered with by any social activities, or by the House of Delegates, when it is possible to avoid it, and no scientific section shall remain in session during a general meeting. The purpose of these requirements is clear. No essayist will be permitted to consume more than twenty minutes in presenting his paper, unless exception has been made by the Council on Scientific Work and the fact specifically stated in the program; not more than five minutes shall be allowed for discussion, and the time shall not be extended either in the case of the essayist or the discussor. However, the time of a section may be extended for the purpose of hearing continued discussions, where such extension does not conflict with a general meeting. Petitions, memorials and resolutions originating in scientific sections must be approved by the House of Delegates before they may be said to represent the views of the State Association.

The Component County Medical Society is the basic unit of organized medicine. Heretofore this important fact has been recognized principally by word of mouth and only incidentally by any consistent effort to thoroughly provide for and coördinate the activities of these important groups, in any constitution and by-laws we have seen.

References to county societies in our by-laws before this time have been a sort of patchwork composition, the several patches having been added from time to time as they became absolutely necessary. The standard constitution and by-laws for county societies, furnished in pamphlet form by the American Medical Association, has been used by most county societies, without any formal adoption, at least so far as the State Association has knowledge of, with a great variety of amendments, likewise of a patchwork nature. Here and there county societies have become ambitious and adopted for their own guidance such laws and regulations as they saw fit—for the most part, without reference to the Board of Councilors or anybody else. If they happened to be compatible with the laws of the State Medical Association and the American Medical Association, all well and good; if not, likewise all well and good. Clearly something had to be done, and our Committee on Revision has taken this opportunity to do it, and we think we can say without fear of contradiction that the maximum has very nearly been attained. Indeed, so far as our knowledge of the practical management of a county society is concerned, the present chapter (XI) on county societies would suffice for the guidance of most of them, with a certain amount of amendment, such as pertains to the time and place of meeting, order of business, amount of dues, etc.

Based on constitutional provisions, the procedure in organizing a county society is clearly set out, and there need be no misunderstanding or misconception. It is made clear that five or more physicians, in counties not already covered by a similar organization, may apply to the Board of Councilors for a charter and receive the same if all of the provisions of the by-laws are complied with, in the order set out, and that there can be no overlapping or conflict of organizations, either county or district.

It is made clear that county societies shall adopt a constitution and by-laws compatible with those of the State Medical Association, and that it is necessary that these instruments be approved by the Board of Councilors before they are effective. Failure to secure the approval of the Board of Councilors is ground for forfeiture of charter.

County societies thus organized and becoming a part of the State Medical Association by virtue of the fact that the latter organization is a confederacy, are extended the right to incorporate under the laws of the State of Texas, independently, so long as the act of incorporation does not disassociate them from the State Association. In order that there may be uniformity of purpose, and that this purpose may embrace the important function of "enforcing the laws enacted to protect the public against any who may offer to practice medicine in violation of the laws of the State of Texas" (which is the principal point of danger, and the most important reason for incorporation), a standard application is incorporated in one of the sections of this chapter, which application has been approved by our general attorney and accepted by the State of Texas for the purposes intended. However, and in this connection, it is provided that articles of incorporation already in effect may be continued, provided there is no irreconcilable conflict with the State Association constitution and by-laws.

It is important to note that while county societies may incorporate and provide for the transaction of routine business through a board of directors, appeal to the society from the decisions of the board of directors must be allowed, and all election of members and officers, and trials of members for unethical and improper conduct must be by the society as a whole. In other words, the board of directors may not assume to speak for the county society membership in these important particulars. It might be, as a matter of law, that the board of directors could be required to approve of the action of the society in any such instance. Where there is a conflict between the board of directors and the society as a whole, one of the conditions anticipated by the constitution (section 3, article XIV), incorporation must be abandoned in favor of the State Association.

The constitutional requirements for membership in the State Association, through county societies, is reiterated and made to apply directly to the county society. There has always been a failure to coördinate the constitution and by-laws of the State Association and the county society, in this respect.

The honorary membership, already referred to, is provided for in detail.

The right to membership in a county society, of all who are legalized to practice medicine in Texas and who may qualify in all particulars therefor, is recognized. While county societies are given exclusive control of their own membership, applicants denied membership and who would appear to be qualified are given the opportunity to join elsewhere, under certain conditions. The provision of the old by-laws that a member of one society removing to the jurisdiction of another shall within a year become a member of the society of his new home community, and that the new society is obliged

to accept him as a member, has been perpetuated, with a slight change in wording to make the situation clearer (sections 8 and 9, chapter XI). There is a typographical error in one of these sections which, however, does not change its meaning in any particular.

Applicants for membership in a society must be investigated by the board of censors before they may be voted upon by the society, and boards of censors are required to ascertain from the State Secretary what the medical record of applicants may happen to be, so far as the record in the state office will show. The State Secretary can, of course, ascertain from the Secretary of the A. M. A. the record of any applicant concerning whom he has no information. This is an important matter, as a protection to the good name of the county society and the State Association. On more than one occasion physicians with unsavory records have been unsuspectingly admitted into county societies and have later caused trouble. Of course, as long as the light holds out to burn, the vilest sinner may return, and all of that, but the county society is entitled to know what it is doing when it extends invitations to such as these.

An effort has been made to simplify procedures in making a membership of record, both in the office of the county society secretary and that of the State Secretary. Applications will hereafter be made in duplicate, giving the data required in section 10 of chapter XI. The original will be retained in the files of the county society and the duplicate sent to the State Secretary. These blanks, incidentally, have not yet been prepared, and until they are county society secretaries will use the old "application" and "memoranda for permanent record" blanks, sending the latter to the State Secretary and retaining the former in their own files.

There is an additional provision here which is worth while. If charges are preferred against a member after he has been granted a clearance by his society and the right to join another society, no matter from what source, or before which of the two societies the charges are preferred, they shall be passed upon by the society most convenient for the purpose, whether it be the old or the new. In other words, the new society investigates an applicant coming by transfer, and if he is not fit for membership for some specific reason, brings the matter to the attention of the transferring society, filing the necessary charges.

When a member transfers from one society to another, both the old and the new society secretaries are required to report the matter to the State Secretary. In this way, and this way only, can the State Secretary be kept informed as to changes in membership. Additional dues are not charged in transfers, but the State Association requires payment of the state per capita assessment in the case of those who join from outside the State. On the one hand the state assessment has been paid, and on the other it has not. The American Medical Association has been endeavoring for some years to devise a system of transfer of membership from one state association to another which would be fair, suitable and acceptable to all concerned. Because of the differences in dues charged and in service rendered to members, this is a difficult matter. There is an inequality, as for that, between the advantages of membership in the different societies in the state, but that is all a family affair and the differences may well be waived. Indeed, they might be waived as between the members of the larger family, the several state associations, and it appears that we have already waived—passing the buck to the county society.

There are some rather specific provisions relating to the officers of the county society, delegates to the State Association, elections, and the filling of vacancies, which have needed specific handling for sometime.

The duties of county society secretaries have also been given in detail, and there can now be no doubt as to what may be expected of this important official.

Perhaps the most constructive piece of work in the entire new compilation is the reference to procedure in trying members for misconduct of the several varieties heretofore recognized as offenses. A casual reading of the several sections referring to these matters leaves one rather confused, but a closer study and an example or two, will make them perfectly clear. Indeed, they are rather simple, but because of their unusual nature and comprehensiveness they are a little hard to grasp. Perhaps we might tell the story in simple and brief language:

First, charges are preferred in writing. It does not seem to make a great deal of difference who does the preferring. The charges are referred without debate to the board of censors, which body makes investigations and conducts hearings if necessary. Testimony adduced at a hearing is reduced to a comprehensive summary that is agreeable to both sides, which summary is submitted to the county society when the board of censors makes its report. The county society, after hearing this agreed summary read, proceeds to vote. There is to be no debate, presumably, each member considering himself

both as judge and jury. Voting is by written ballot and no motion is necessary to start proceedings. The first vote is on the guilt or innocence of the accused. If a majority votes guilty, then another vote is taken as to whether the accused shall be (1) censored, (2) suspended, or (3) expelled. It requires a majority vote to censure or suspend, but a two-thirds majority vote to expel. Manifestly, if the first vote taken is two-thirds for expulsion, proceedings cease immediately and the accused is already expelled. If a two-thirds majority vote for expulsion is not received, and neither censure nor suspension receives a majority of all votes cast, another vote must be taken as between censure and suspension. Manifestly, this vote settles the matter, as one or the other must receive a majority. If there is to be suspension, then a vote is taken to fix the term of such suspension, dropping the penalty receiving the lowest number of votes after each ballot. The suspension is dated from the time this action is taken, unless there is appeal, in which instance the suspension is dated from the time final decision is made. There may not be action in any case until charges have been before the society at least six weeks. Counsel is allowed the accused, either before the Board of Censors or the society, but said counsel shall be selected from among the members of the State Medical Association, which would seem to exclude private legal counsel. It is also provided that the accused may secure the verbatim report of evidence adduced during the investigations by the Board of Censors, through the use of competent stenographers, but the county society must be furnished with a true copy of the evidence thus secured. The stenographer employed must comply with the rules and regulations advanced by the Board of Censors for the conduct of its hearings. Counsel, no matter of what sort, must comply with the rules of the society and the Board of Censors, in representing defendants. Of course, members suspended or expelled are denied all privileges of the Association for the period of their suspension and immediately that they are separated from the society by operation of the sentence of expulsion. Any member convicted and penalized by a county society, may appeal to the councilor of the district from the decision of the society, and to the Board of Councilors from the decision of the councilor. The decision of the Board of Councilors is final in any case, except for the several particulars under which appeal may be had to the Judicial Council of the American Medical Association.

The calendar year is specifically established as the official year of the county society. Members will pay dues accordingly, and county society secretaries will report their membership to the State Secretary not later than April 1. Those former members who are not included in the annual report of the county society secretary are thus clearly excluded from membership, which membership is considered to have ceased on January 1. While county society secretaries are required to forward the state dues promptly, they can use their judgment in the matter, which serves to create a sort of hiatus, during which time no one but the county secretary may know just who are members of his society. He is not required to inform the State Secretary as to the date upon which a member actually paid. Therefore, the State Secretary assumes that all who are reported members at the time the annual report is made, have been members since January 1, and are entitled to all of the privileges of membership, including medical defense, during that time. Subscription to the JOURNAL begins May 1, which is the beginning of the fiscal year of the State Association. The fiscal year should not be confused with the Association year, which is the calendar year, as is the case with the county society.

The Duties of the Councilor and the Board of Councilors are more clearly and specifically set out than heretofore, but otherwise the function of the councilor and the board remain fundamentally as they were before. The intimate relationship of the councilor to the members of the county societies in his district has led us gradually to the desire to assure ourselves of the selection of a suitable official through the expedient of their election at the hands of district societies—or the county societies of the district, at least. We overlook the fact that the councilor is not an official of the district but of the State Association. He should *not* be an officer of the district. There are plenty of officers in the district, and there can be others. The councilor represents a rather indefinite State Association in maintaining the balance between the more definite county societies, through his duties as organizer, peacemaker and judge. Occasions have arisen wherein councilors have made themselves quite unpopular for a time by insisting upon orderly procedures. They must be in a position to so insist if occasion requires. It is not as if we were balancing the interests of one district against those of another, or the others. If there is anything of the sort, it is in the House of Delegates, as between county societies. If it is desired to extend this balancing of opinion and interest to include the districts, it would be better to

provide for a district representative in the House of Delegates. At least, these are our personal views, and, incidentally, the views of many who have studied our organization in detail. Conflicting opinion in this regard has been adjusted, it seems to us very happily, through the adoption of a resolution by the House of Delegates, which recites the fact that while the councilor is an officer of the State Association and not of the district, his election should be upon nomination by delegates from his district. Thus the principle is preserved and the contingency met.

If we are well informed, ours is one of the few state medical associations that insist upon the Board of Councilors as an important element in our organization. No other state association requires of the Board of Councilors that extensive service that we require, and persists in extending to the Board of Councilors that power which we extend. It is our belief that one of the important factors in our success as an organization is incident to the fact that we insist upon it that the Board of Councilors function as originally intended, and that its authority be not dissipated by continuously assigning portions thereof to temporary committees as matters of expediency.

As has already been said, members appeal from decisions of their respective county societies in any matters pertaining to their membership, first to the councilor and then, if necessary, to the Board of Councilors, where decision is final. County societies may also appeal. This is as it has always been, but there is the additional and very important requirement, that all appeals thus made shall be in writing, definitely stated and in chronological order. It is also provided that the decision of the Board of Councilors, when finally reached, should be handed down in the same way. Procedures before the Board of Councilors shall be in accordance with those required by the court in matters of appeal. The council does not, of course, have original jurisdiction in such matters. An attempt is made to give the council the right to summons and examine witnesses, and both sides in any controversy before the board have the right to counsel of their own choice, respectively, from among the members of the State Association. Such counsel is required to respect and obey rules of procedure established by the board.

The Board of Councilors has the authority to forfeit the charters of county societies for (1) failure or refusal to comply with the laws of the Association; (2) failure to pay the state per capita assessment; (3) failure of members to conform to the rules of ethics of the American Medical Association; (4) failure to enforce the rules of the board against fee-splitting, and (5) for maintaining an antagonistic attitude toward the State Association and persisting in any conflict with the letter and spirit of the State Association Constitution and By-Laws.

The Vice-Councilor has been again provided for, and his authority and function are exactly those of the councilor, but only when he is performing a duty pertaining to the office of councilor.

Amendments to be Proposed.—Dr. W. P. Coyle, a delegate of the Orange County Medical Society, gave notice during the meeting of the House of Delegates last year, that he would attempt to amend the constitution of the State Association so as to eliminate the power extended the President to call a special meeting of either the House of Delegates or the State Association.

Dr. Coyle also proposes to remove, by suitable amendment to the by-laws, the requirements that a county society must accept any member transferred from another county society.

Dr. Coyle also proposes to extend the term of office of county society delegates, so as to enhance the chance of the House of Delegates for having more experienced membership each year.

Dr. M. M. Morrison, delegate from Grayson County Medical Society, filed amendments to the constitution, in effect eliminating the *ex-officio* members of the House of Delegates as such, but permitting them to participate in the proceedings in the House without the right to vote.

These proposals will be found on pages 132 and 133 of the June, 1925, number of the JOURNAL.

Dues Have Been Due One Month, and our paid-up membership is exactly 243. Of course, many more than that number have paid. County society secretaries are very largely waiting for an accumulation of dues before remitting to the State Secretary; it is within the province of the county society secretary to do so and we are not complaining. There are two good reasons, however, why the dues should be forwarded rather promptly: First, the member wants his membership card, and, second, the business of the Association can be handled much more expeditiously if dues are remitted promptly and not all crowded into the few days remaining before the annual session. There is the matter of medical defense, which is also important, but under the present ruling any member recorded as such on the annual report of the county society is protected for the entire year. How long this

ruling will remain in effect we cannot say, the matter never having been adjudicated by a court of competent jurisdiction. If it should be ruled that a member becomes such immediately that he pays his dues to his county society secretary and not before, it is then a matter of importance to pay the county society secretary early. If it should be ruled that a member is not entitled to medical defense until his money reaches the State Secretary, it then becomes a matter of importance that not only the county society secretary be paid promptly, but that remittance be made promptly to the State Secretary. However, all of that may be, the fact remains that on the first day of February we have very few members, so far as any of us know.

We referred to this matter in the last number of the JOURNAL and will not discuss the matter further at this time. We simply urge that those who have not paid dues do so at once. Membership cards will be mailed promptly upon receipt of the money in the office of the State Secretary.

Get a Green Card now!

Preparations for the Dallas Session of the A. M. A. are being pushed vigorously. The local committee have their respective duties well in hand. The greatest difficulty met with by the Arrangement Committee is the desire on the part of everybody and the cook, to provide entertainment for our distinguished visitors. There is a rule against too much of this sort of a good thing, of course, and somebody has to be disappointed. While the committee may be bothered, the visitors will at least have what the committee considers the cream of the entertainment features offered. No entertainment will be allowed to conflict with the business of the occasion, which is as it should be.

We are told by a member of the Council on Scientific Assembly, that the scientific program for this year is the best that has ever been offered, and word comes to us from those in charge of scientific exhibits that this feature of the session will this year be of unusual merit. All of this may sound strange, considering that the meeting is being held so far from the large medical centers of the country. Doubtless those in charge of these matters have redoubled their efforts in view of the general belief that busy men of medical science would hesitate to travel so far from base as Texas appears to them to be, for the purpose of reading papers or presenting scientific exhibits, and the results are for that reason unusually good. At any rate, the profession of Texas will have the opportunity of its life to participate in a big scientific program of real merit.

As an instance of what is being done, there will be an exhibit on Immunology, prepared by Dr. H. Wahl, Professor of Pathology and Acting Dean of the Medical College, University of Kansas, and Dr. Ludvig Hektoen, Director of the John McCormack Institute for Infectious Diseases. The United States Public Health Service is arranging an extensive exhibit on vaccination. The subjects included in the Immunology exhibit will be Tuberculins, Vaccination, Dick and Schick Reactions, Serums and Vaccines, Precipitin Reactions, Allergy, Natural Immunity, etc. Another attractive scientific exhibit will be daily demonstrations of morbid anatomy, under the direction of Dr. Geo. T. Caldwell, Professor of Pathology of Baylor University Medical School. Those who have attended recent sessions of the A. M. A. will remember these illustrated talks on pathology, with the actual specimens exhibited. Specimens will be shipped daily from the various large hospitals in the State, including those of Dallas, of course.

Several special trains to Texas have been planned. A "Golf Special" will leave Chicago April 11, with 125 passengers aboard, stopping in Nashville, Tennessee; Biloxi Mississippi; New Orleans, Galveston and San Antonio, at each of which places golf will be played by the fans on board the train. There will be a variety of other specials. On the whole, it appears that the meeting will be largely attended from outside of the State, and most certainly many Texas physicians will register.

The matter of hotel accommodations is giving the local Arrangement Committee some concern at this time. There are numerous first-class hotels in Dallas, conveniently located, but accommodations in the two or three leading hotels, such as are known throughout the country and best known in Texas, cannot be secured for the entire attendance. A list of the leading hotels was published in the January 2 number of *The Journal of the A. M. A.*, but people from the Eastern states are in the habit of looking upon the small hotel with suspicion, and some of them would feel aggrieved if they were required to put up with this sort of accommodation. We of Texas know that many of these small hotels are first-class institutions and entirely desirable. Under the circumstances, the polite thing for us to do is to leave the big hotels for the out-of-state visitors, making application to the hotel committee for the sort of accommodations we want and trusting the hotel committee to do the best it can

for us. We are assured that the hotel committee will not embarrass any applicant for hotel accommodations. Dr. M. P. Stone, Medical Arts Building, Dallas, is chairman, and applications for accommodations should be made to him and not to the hotels direct.

All railroad passenger associations have granted a rate of one and one-half fare for the round trip, on the usual certificate plan. Those of our members who expect to attend should become Fellows of the A. M. A. without delay. There are just two requirements, first, membership in the State Association and, second, an additional fee of $5.00, which fee, incidentally, covers subscription to *The Journal of the A. M. A.*, undoubtedly the greatest medical publication in the world.

The Demands the General Practitioner Has to Meet are giving some concern to educational authorities in this country at this particular time. It seems that the era of the specialist as the desideratum in medical education is about to give way to that of the general practitioner, who must, or should, initiate proceedings in the great majority of cases. Of course, no one ever intended to give the specialist, in whatever line, any particular precedence over the general practitioner, but in view of the fact that the ranks of the specialist have for the most part been recruited from the general practitioner, it has seemed to and really should be, a progressive matter—not so much progress by way of increasing importance, but by way of increased skill in limited fields. So intensely interested have we been in attaining the limit of possibilities in the matter of treatment that we have been in grave danger of neglecting our starting point. Fortunately, the rank and file of the medical profession has been of such sterling worth that the tendency to specialize has not disturbed general medical efficiency to a very hurtful extent; but the tendency is in that direction, nevertheless, and we are pleased to see the educational authorities in the medical field facing about and giving more concentrated attention to the man who must, or at least should, initiate proceedings and carry them on for the most part, no matter what the type of disorder being dealt with. While it is true that no general practitioner can excel in all of the several fields into which the practice of medicine has been arbitrarily divided, it is likewise a fact that no limited practitioner can excel in general diagnosis and in general conception of illness. There is a distinct dividing line, no matter what sort or how many specialists are available, and the sooner we fix our own attention on that fact the better off our people will be. Certainly the medical profession will function more satisfactorily if we are able to properly adjust a field of medical practice between the general practitioner and the specialist, so-called.

This brief observation is incident to a request we have had from Dr. William Keiller, Dean of the Medical Branch of the University of Texas, Galveston (incidentally, President-Elect of the State Medical Association of Texas), for certain information along these lines. We will quote in full Dr. Keiller's communication to us. We trust our readers will give immediate and thoughtful attention to this communication, including the correspondence with Dr. Keiller that is requested. The letter follows:

"The Commission on Medical Education of the Association of American Medical Colleges is making an effort to revise the medical curriculum with a view to better meeting the demands the general practitioner has to meet in practice.

"To assist in this purpose the Dean of the Medical School, University of Texas, Galveston, Texas, will very greatly appreciate letters from Texas doctors, answering the following questions:

"(1) What are the prevailing ailments you are expected to treat?

"(2) To what extent are you asked to advise individuals, groups, or community organizations in health matters and in disease prevention?

"(3) What is the relative number and character of minor illnesses you are called upon to treat?

"(4) To what extent do you require consultations, laboratory or hospital services in order to adequately meet your responsibilities?

"(5) If a specialist, please give the name of your specialty."

The New American Medical Directory.—The Ninth Edition of the American Medical Directory made its appearance a few months ago and, as was the case with previous editions, is a distinct improvement over its predecessor, as valuable as that one was. It has now been almost twenty years since the first edition of this monumental work was compiled. Prior to 1905 no official directory had been published by the American Medical Association, and the only national directories in existence were published as private enterprises and for profit. In many of these, physicians of questionable professional character could, by the payment of a fee, or even by merely purchasing a copy of the directory, have several inches of highly flattering and, oftentimes, untruthful information printed about themselves. Naturally, the largest display advertisements were thus paid for by quacks. The advertising matter in these directories included much objectionable matter from questionable proprietary medicines to those whose unreliability was unquestionable.

Besides this, the information concerning physicians was oftentimes inaccurate. Such

errors as reporting physicians dead who had changed locations but who still remained on this terrestrial ball, were quite common. Since these directories were published for profit, the overhead was in many instances reduced to a hurtful minimum, resulting in failure to check data, and inadequate proofreading.

At the Annual Meeting of the American Medical Association at Portland, Oregon, in 1905, the Board of Trustees proposed the establishment of a biographical record department and the publication of a medical directory, which "should differ from other directories in three particulars: first, it should be a directory of the American medical profession, published and owned by the physicians themselves; second, information regarding college and year of graduation and date of licensure and society membership, should be verified from official sources; third, the directory should furnish the same information regarding each physician, whether a subscriber to the directory or not. No information was to be inserted for pay. It was to give the names of all members in good standing of the constituent state associations and to indicate fellowship in the American Medical Association. The information regarding each physician was to include his name in full, year of birth, medical college and year of graduation, year in which he received his license, residence and office address and office hours."

The collection of information was begun at once and proved to be as was to be expected, a very tedious task. The first edition of the Directory appeared in the fall of 1906. It was a great improvement over any other directories of American physicians that had appeared previously; however, many mistakes and duplications were incorporated in this first edition. The advertising was ethical and above reproach. It was published at a great loss to the Association because the sale was not sufficient to cover the large expense of its compilation and publication. For this reason there was some doubt as to whether or not a second edition would be published; but a second edition was issued in 1909, and although this edition was a great improvement over the first, it still contained too many errors.

From this time on the work of gathering biographical material was better organized and better coöperation was secured from physicians, medical colleges, hospitals and state examining boards.

It was during the World War that the great value of the American Medical Directory was realized, for by means of it the Association was in a position to aid the War Department greatly in verifying the records of the more than 35,000 American physicians who entered the service. The biographical department of the A. M. A. was the only central place where data of this kind was available.

The edition which appeared in 1918 (Sixth), was published under great difficulties, owing to the fact that so many physicians were in the service and moving about from place to place without being able to furnish permanent addresses.

We often feel that the American Medical Directory is not appreciated by the profession in general, as it should be. We have noted with interest that commercial organizations appear to realize the value of this work more than the profession itself. The copy of the Directory in the State Association office is frequently consulted by representatives of life insurance companies, railroads and various industrial organizations. The information contained in this Directory is accepted by them as authentic and, in many instances, as the best obtainable.

Since this Directory contains only the names of doctors of medicine, it separates the sheep from the goats. The October *American Medical Association Bulletin*, in speaking of the Directory, says, "It makes the medical profession a distinct entity. It definitely sets off the qualified licensed doctor of medicine from the thousands of healers and pseudo doctors abroad in the land. It tells the world who the M. D. is, where he is, and by what right he is an M. D."

Besides giving the names of licensed doctors of medicine by state (or province) in the United States and its possessions and in the Dominion of Canada, an alphabetical index is also given, thus enabling one to locate a physician whose name is known but whose location is not known. Valuable information concerning medical legislation of the various states is given, and also lists of hospitals and medical colleges with many pertinent facts concerning these. Rosters of the officers in the United States Army and Navy, the United States Public Health Service and other governmental branches are also included.

Our readers are urged to coöperate with the American Medical Association in the matter of collecting biographical material, and when information is requested, to furnish this information promptly and be sure that such information is accurate.

The Directory is for sale. The address is 535 North Dearborn Street, Chicago Illinois.

ORIGINAL ARTICLES

ACIDOSIS AND INSULIN.*

BY

F. D. GARRETT, M. D.,
EL PASO, TEXAS.

Normally, the alkalinity of the blood is regulated by chemical buffers, and maximum amounts of the body acids may be added; but so long as carbon dioxide elimination by the lungs is ample, and the kidneys eliminate their share of the acid waste, the equilibrium between acid and base is maintained.

The role played by the kidneys has been studied, especially by Henderson[1], and Chace and Meyers[2], who called attention to the specific action by which the kidneys separate acids from the combined base, excrete the acid, and save the base to the blood so that it may combine again with acid. The lungs form a second excretory channel. Any tendency to acidosis is normally countered by increased rate and depth of inspiration, and a "washing out" of the carbon dioxide of the blood. The regulation of the reaction of the blood is accomplished in the largest degree by the kidneys, according to Henderson. At the same time, the lungs would seem to act more quickly to urgent demands, and to serve in a more delicate manner to regulate the balance between acid and base.

In addition to the safeguards which nature has so generously provided for the elimination of the acid wastes of the body, there is another factor of the greatest importance, namely, pancreatic insulin. The utilization of carbohydrates in the tissues of the body is a process of oxygenation. Insulin is normally carried in the blood from the pancreas to the tissues where it activates the process of carbohydrate combustion. The end products of fat digestion cannot be fully utilized in the tissues of the body, without the presence of active carbohydrate combustion. When the burning of carbohydrates is slowed down from any cause, a portion of the normal fatty acids are converted into acid ketones, which soon appear in the blood and urine. It is to the treatment of the condition resulting from this faulty metabolism, commonly called acidosis, or better, ketosis, that I wish to devote this paper.

We have been taught by Banting, MacLeod, and others[3], and know from experience, that an advanced diabetic in coma, with his blood loaded with sugar and ketones, can often be quickly relieved by insulin, together with sufficient fluids to stimulate kidney elimination, and enough glucose to carry on oxygenation in the tissues.

The following case is an example of the results which can be accomplished:

Case No 1.—A woman, aged 54 years, was found in coma by her attending physician in December, 1923. She had a large amount of sugar in the urine, with four plus acetone and diacetic acid. Her breathing was deep and rapid, her pupils slightly dilated and not reacting to light, and her swallowing and tendon reflexes were absent. The patient had been unconscious for about six hours. There was a history of diabetes for three years, and some treatment, but for several months she had indulged an overly good appetite.

A quart of normal saline was started subcutaneously at once, and, as soon as possible, a Murphy drip of 5 per cent glucose solution was given per rectum. We then gave the patient 30 units of insulin intravenously, and this was followed after an hour by 20 units subcutaneously. Within two hours the patient was able to swallow a little orange juice, and a little later, consciousness returned. From this time on, further increases in the amount of orange juice were made, until she was getting the juice of two oranges every two hours, while the dose of insulin was determined by its control of the urine and blood sugar. The acid bodies disappeared from the urine on the second day of treatment. The diet was increased, keeping the amount of fat low, and by the end of the first week, the patient was taking a balanced diet (Woodyats Formula). The patient, with gradually diminishing doses of insulin, was allowed to lose weight from 160 to 120 pounds. Six months ago, the insulin was omitted, and the urine has remained constantly sugar free with an ample diet.

In this case there came a time when the kidneys and lungs could no longer meet the demands of elimination. We were able to supply the insulin factor in sufficient quantity to start tissue metabolism of glucose, and the fatty acids were utilized without formation of toxic ketones.

There is another large class of ketosis cases where the pancreas is not diseased, as far as we know, and yet we have reason to suspect that the tissues of the body are deficient in insulin. The response of such cases to the use of insulin is prompt and gratifying, as I hope to show by the following case reports:

Case No 2.—A girl, aged 19 years, came into the hospital complaining of vomiting of two weeks' duration. The past history was negative, except that she had been treated for malaria a year before. She had lost in weight from 110 to 80 pounds. Her temperature ranged from 99 to 101° F., and her pulse from 80 to 100. The general examination, including examination of the chest and abdomen, was negative. Except for moderate secondary anemia, the blood was normal. Examination of the urine was negative, except that tests for acetone and diacetic acid were strongly positive.

Efforts to control the vomiting, including trials of duodenal feeding, 5 per cent sodium bicarbonate solution and glucose solution, per rectum, did not help. On the third day of treatment we gave 3 units of insulin every thirty minutes, until four doses, or 12 units, had been given. During the

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 6, 1925.

1. Henderson, Palmer: Clinical Studies on the Acid-Base Equilibrium and the Nature of Acidosis, Archiv. Int. Med., Vol. xii, p. 155, August, 1913.
2. Chace and Meyers: Acidosis in Nephritis, Jour. A. M. A., March 6, 1920, Vol. lxxiv, p. 641.
3. Banting, MacLeod and Others: Transactions R. S. C., Section V, 1922.

same period a pint of 5 per cent glucose solution was given by the Murphy drip method per rectum, and retained. Within 1 or 2 hours after the insulin was given, the patient took a little orange juice and retained it. The orange juice was increased and gruels and hot sweetened tea added to the diet. Within twelve hours the urine was free from acetone, and the diet was rapidly increased to normal.

There was first starvation, then ketosis, and finally a vicious circle. The response to the use of insulin was prompt, and it seemed that the tissues only required a small amount to enable them to do their normal work.

Case No 3.—A woman, aged 42 years, came into the hospital on account of an ulcer on the lesser curvature of the stomach, near the pylorus. Two weeks before entering the hospital, she began vomiting, due, no doubt, to pylorospasm and retention. She had developed marked ketosis in spite of stomach lavage, alkaline treatment, and attempts at feeding. Tentative efforts to control the vomiting without insulin, carried out in much the same manner as in the previous case, failed to relieve the vomiting or control the ketosis.

Small doses of insulin, with glucose solution, were then given per rectum, and with the same good results, as in the previous case. Some ten days later, her condition was so satisfactory that she underwent a gastro-enterostomy and made a good recovery.

It is hoped that the cases just reported will emphasize still further that the use of insulin is not limited to diabetes.

Thalheimer[4], in August, 1923, reported a series of postoperative cases, treated successfully with the intravenous administration of glucose and hypodermic injections of insulin. In March, 1923, he reported five cases of severe toxemia from vomiting of pregnancy, in which the results were so striking and so exactly paralleled the results in all cases of postoperative ketosis, that they seemed important enough to report. He claims that the curative power of insulin in the ketosis of the pernicious vomiting of pregnancy seems to act in the same way as in postoperative, nondiabetic ketosis; and that some patients require only one treatment, while others may need several. The response of the individual, he says, will indicate the number of treatments necessary.

Fisher and Snell[5] report a case of postoperative, nondiabetic ketosis occurring after the removal of a gangrenous appendix. This case was relieved very promptly by insulin-glucose treatment.

Ginsberg[6] treated a very desperate case of ketosis following trauma. The patient was a boy, 12 years old, and recovered promptly on the insulin-glucose treatment.

CONCLUSIONS.

1. In severe acidosis or ketosis, if the kidneys and lungs are not too much diseased, the insulin-glucose treatment is of great value.

2. The use of small doses of insulin in nondiabetic ketosis, adequately covered by glucose in some form, is a safe and convenient method of treatment.

3. If larger doses of insulin are used, it is perhaps better to give a definite quantity of glucose intravenously, and about one unit of insulin for each two grams of glucose given.

ABSTRACT OF DISCUSSION.

Dr. D. W. Carter, Jr., Dallas: Acidosis is really an incorrect term. It is not the condition that its name indicates. The different reactions of the blood do not change any more than the difference between tap water and distilled water. Some clinicians give a word of warning against administering insulin to an otherwise normal patient. Extreme care should be used not to cause a hyperglycemia in an otherwise normal blood.

Dr. Garrett (closing): It is well to emphasize care in the administration of insulin. I recommend its use only in severe cases of ketosis. I do not believe it is always needed in the mild types. Our dosage is not large. Two or three units of insulin every thirty minutes for four doses can easily be covered with glucose without harm to the patient. Before closing, I would like to make mention of the fact that alkalosis and ketosis may exist at the same time. This is particularly true where there is persistent vomiting.

THE PRESENT STATUS OF INSULIN.*

BY

CHAS. T. STONE, M. D.,
GALVESTON, TEXAS.

Since the first publications regarding insulin by Banting and Best, of the University of Toronto, early in 1922, our knowledge of insulin in particular and diabetes in general, has increased in a rather remarkable manner. Prior to the ultimate discovery of insulin much good work had been done along these lines by other observers, among whom should be mentioned Sandemeyer, Zuelzer, Forsbach, Crofton, Scott, Waterman, Murlin, Kraemer, Kleiner and Paulesco. Some of the experimental work of these earlier workers came very near success, and doubtless might have been completed except for two main difficulties which they failed to recognize. The first of these was that the internal secretion of the pancreas is destroyed or rendered inert by contact with the trypsin of its external secretion, while the second was due to the fact that in the extraction of these earlier preparations so much protein was obtained with the insulin that the results obtained by their use were made uncertain and difficult of interpretation. Their efforts were further handicapped by the fact that until recent years no practical method

4. Thalheimer: Insulin Treatment of Postoperative (Non-Diabetic) Acidosis, Jour. A. M. A., August 4, 1923, Vol. lxxxi, p. 383.

5. Fisher and Snell: Insulin Treatment of Postoperative (Non-Diabetic) Acidosis, Wis. Med. Jour., 1923, Vol. xxii, p. 220.

6. Ginsberg: Use of Insulin in a Case of Acidosis Following Trauma, Jour. A. M. A., August 4, 1923, Vol. lxxxi, p. 383.

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 7, 1925.

of determining the blood sugar was available. However, the labors of these early pioneers in the search for the internal secretion of the pancreas had caused a great deal of thoughtful attention to be focused on the whole subject, and so in a way prepared the field for the final triumph of Banting and Best.

In retrospect, it is interesting to note that while Von Mering and Minkowski proved conclusively that diabetes is a pancreatic deficiency disease, in 1899, it was not until 1901 that Opie and 1902 that Ssobelew demonstrated that the islands of Langerhan's were the portions of the gland involved in pancreatic diabetes. Then various workers (Arnozant and Vaillard, Ssobelew, Scott, and Kamimura) found that ligation of the pancreatic duct caused a degeneration of the zymogenetic tissue of the pancreas, but that the animals did not develop glycosuria, due to the fact that the islets tissue remained intact. This point was so well proven that, in 1916, Sir E. A. Shafer expressed the general belief in the source of the internal secretion of the pancreas by calling it "insulin." It was not until five years later that Banting and Best finally overcame the last obstacle to the isolation of this vital hormone.

The history of the final chapters in the isolation of insulin is so well known that no further comment relative thereto is required at this time. Nor does the present scope of this paper permit consideration of details of management and care of patients suffering with diabetes, except in a most general way. Usually, whenever there is a new remedy or treatment for a disease brought forward, there is a period of enthusiastic anticipation as to its merits. All too often this is followed by an ultimate realization of serious limitations surrounding it. In the case of insulin, happy to relate, no such disappointing features have been encountered, due very largely to the thoroughly scientific manner by which its merits were ascertained and fully determined before definite claims as to its value were made. The purpose of the present communication is to point out the salient facts in regard to the clinical applications of insulin and results thereof, after an experience of over two and a half years with this remedy.

In an article by Banting, Best, Collip, Campbell and Fletcher[1] published in March, 1922, it is stated in summarizing the action of insulin that, "Clinical observations at this juncture would appear to justify the following conclusions: (1) Blood sugar can be markedly reduced even to normal values; (2) glycosuria can be abolished; (3) the acetone bodies can be made to disappear from the urine; (4) the respiratory quotient shows evidence of increased utilization of carbohydrates; (5) a definite improvement is observed in the general condition of these patients, and, in addition, the patients themselves report a subjective sense of well being and increased vigor for a period following the administration of these preparations." (Insulin). It is indeed a tribute to these men that three years later all the evidence we have accumulated conclusively proves the accuracy of their original deductions.

Insulin is not a cure for diabetes; it is a treatment, the success of which depends very largely upon the successful adaptation of it to appropriate dietetic measures, along with a fair degree of intelligent coöperation between patient and physician. Joslin[2] says, "With insulin the principles of the diabetic diet are utilized, not replaced." Later he adds, "Insulin is a remedy primarily for the wise and not for the foolish, be they patients or doctors. Every one knows it requires brains to live long with diabetes, but to use insulin successfully requires more brains."

We know well that insulin will cause a rapid fall in blood sugar, even causing a severe hypoglycemic reaction if an overdose is given. As the blood sugar falls to and below the renal threshold, glycosuria is abolished. Just how and why insulin causes such a prompt and rapid reduction in the blood sugar is not clearly understood. It is suggested by MacLeod[3] "that the sugar disappears from the blood because of more rapid diffusion into the tissues * * * in other words, insulin must cause a sort of vacuum for sugar to be set up in the tissues, to fill which the sugar is removed first of all from the blood and later, through the blood, from the glycogen stores of the liver." By causing sugar to be utilized, the final oxidation of fats is completed so that acidosis disappears. The liver in completely depancreatized dogs contains 0.5 per cent of glycogen, the normal being 1 to 10 per cent. Feeding these animals glucose and then giving insulin causes a rise in the liver glycogen of from 4 to 20 per cent. Given a preparation having a physiological action as above stated, we have the exact remedy for the management of the human diabetic.

In order to point out the specific value of insulin under various conditions of diabetes it must first be remembered that it is common experience that only about 40 to 50 per cent of diabetics applying for treatment are severely enough affected to require it.

1. Banting, F. G., Best, C. H., Collip, J. B., Campbell, W. R., and Fletcher, A. A.: Canadian Med. Jour., Vol. xii, No. 3, p. 141, 1923.

2. Joslin, E. P.: Treatment of Diabetes Mellitus, 1923.

3. Campbell, W. R., and MacLeod, J. J. R.: Medicine, Vol. iii, No. 3, p. 195, 1924.

An individual with a carbohydrate tolerance of 100 grams probably will do better on a dietetic regime alone; this is certainly the case if his carbohydrate tolerance is 125 grams and above. The patient whose tolerance is between 50 and 100 grams will in most instances be greatly improved by insulin, especially if the tolerance is nearer the lower figure. However, for the emaciated, weak, and miserable diabetic with the ghost of coma constantly near him, and a carbohydrate tolerance of 10 to 50 grams, insulin is a life saver. By its judicious administration such a patient's diet can be increased to the point where he gains weight and strength; he is changed from depression to optimism; the danger of coma becomes more remote, and he may be able to resume work. It is in such instances that insulin does its greatest good. A case report of this type of diabetic will illustrate these points:

B. A., aged 10 years, a diabetic of 5 years' duration, had a severe attack of coma in May, 1922. Her weight was only 27½ pounds. Her emaciation was extreme and she was almost bedridden from weakness. Formerly, she had been a moderately severe case, but her tolerance dropped steadily to the point where she had a daily average of from 8 to 10 grams of sugar in the urine, on a diet of C. 15, P. 21, F. 36, 468 calories. In September, 1922, her diet was increased to C. 19, P. 28, F. 38, 539 calories, and insulin 5 units was given twice daily. From that time her improvement has been continuous and uninterrupted. Her present weight is 55 pounds. She is a lively, apparently healthy child who attends school and is unusually bright in her classes. Her present diet is C. 25, P. 38, F. 62, 810 calories; the insulin dose is 20 units, twice daily. This child is an unusually severe case, whom Dr. Joslin, in whose clinic she was once a patient, considered to have a carbohydrate tolerance of somewhere between 5 and 10 grams. She is one of our few patients who have kept to their diet faithfully that has been unable to make any reduction in the insulin dose. In fact, it has been necessary to increase the dose slightly over and above the increases required by changes in diet. This little girl's life has undoubtedly been prolonged and made to approach the normal over the past two and a half years, and the prognosis in her case is now for a continuation of her present state. Such an instance furnishes very definite and convincing testimony as to the great value of insulin, under the most trying and exacting test, when its use is combined with careful dietetic management.

Patients with a carbohydrate tolerance of between 50 and 100 grams most often represent those who were originally mild cases that have lost in ability to metabolize carbohydrate, either from mismanagement or from the natural downward tendency of their disease, even under proper dietary regulations. Such patients usually present themselves with most of the cardinal symptoms of diabetes, with some degree of emaciation, and often with acetone bodies in the urine. They feel weak, depressed, and often in despair. In this type of individual insulin causes a complete change of front. The diet may be deliberately increased to the desired point for maintenance, safety and palatability. Then the average daily output of sugar in the urine is estimated, and sufficient insulin administered to bring the blood sugar to normal, and thus abolish glycosuria and ketonuria. In a short time the patient begins to gain weight; cheerfulness and optimism replace despondency, and a general sense of well being is experienced. Thus Mr. S., a druggist 36 years of age, kept a fixed and rigid diet for months while he was still a mild diabetic. However, his carbohydrate tolerance fell constantly until he showed glycosuria on a diet containing 80 grams carbohydrate and 2,000 calories. His diet was ultimately raised to one containing 140 grams carbohydrate and 2,500 calories, the excess metabolism requiring 12 units of insulin night and morning. On this regime, after two years, he is symptom free and conducts a fairly large business.

To that unfortunate group of diabetics either mild or moderately severe, with a progressively advancing disease, whose tolerance for carbohydrate is gradually lessening in spite of careful dieting, insulin is of inestimable value. One case of this kind took insulin for a time in small doses, built up some of his lost tolerance, and was able after a few months to give up insulin. At all events, for this class of patients insulin is the defense that stands between them and the pitiable plight of the severe diabetic.

In the treatment of diabetic coma insulin may be looked upon almost as a specific. When cases come under observation early enough after the onset of coma, the results are uniformly good. From twenty to fifty units are given at once, and repeated every one to three hours until the urine becomes sugar free and the patient regains consciousness. If a blood sugar determination shows the level high, no glucose is administered, but in the absence of such examination, it is safer to give some form of readily available carbohydrate. Orange juice by mouth or glucose intravenously is preferred. Coincident with these measures it is advisable to carry out the general care of such cases as recommended by Joslin, viz: (1) Apply external heat; (2) give a purge or evacuant enema; (3) perform a gastric lavage if needed; (4) force fluids, 200 cc. every hour, and (5) give no alkalies. Under such a plan of treatment many cases of coma can be saved that would otherwise certainly die. After the coma has passed, the treatment is that of the average diabetic.

In treating the surgical complications of diabetes, satisfactory improvement has been

noted since the advent of insulin. The diabetic with emergencies such as a rapidly spreading gangrene or infections, massive carbuncles and other conditions calling for prompt operation, can be quickly brought under control with insulin, the operation performed, and the postoperative management greatly simplified and made safer because of insulin.

More recently, there have been appearing in the literature reports of good results in the treatment of surgical shock and other nondiabetic conditions by the combined use of intravenous glucose and insulin. Fisher and Snell[4] recommend such a plan in nondiabetic acidosis, and in shock. Ginsberg[5] reports good results from the use of insulin in a case of acidosis following trauma. In the toxemic vomiting of pregnancy, Thalheimer[6] and others feel that insulin therapy gives better results than the older methods of treatment. However, Campbell[3] of the Toronto group, does not advocate its use along the latter lines and sounds a word of caution regarding the use of the drug in any condition not diabetic.

The dose of insulin is important. As a rule it is safer where possible to use small doses, less than 30 units per day. Joslin likens the patient taking large doses of insulin to one who is walking on long stilts, the longer the stilts the greater the chances of losing one's equilibrium. Insulin cannot be given by mouth; it must be injected. Two or three doses per day are usually required; a few cases seem to do well on one dose before breakfast. It is just as important, if not more so, that the insulin treated patient have as accurate a dietary as the case treated by diet alone. In insulin cases the effort should be made to keep the blood sugar near the normal, just as is done in the dietary management. As overfeeding and overweight are bad principles in the dietary treatment of diabetes; they should likewise be avoided in the patient receiving insulin. In short, the newer concept in the treatment of diabetes is to use insulin to supplement the treatment by diet, not to supplant it.

In closing an address before the International Conference on Health Problems in Tropical America, at Kingston, Jamaica, in July, 1924, Banting[7] tersely stated the case for insulin by saying: "It enables the diabetic to burn sufficient carbohydrates, so that proteins and fats may be added to the diet in sufficient quantities to provide energy for the economic burdens of life."

With these facts in mind, when we remember that there are approximately one million diabetics in the United States alone, and that about 300,000 or 500,000 are of the severe or moderately severe type, who can be greatly improved by treatment with insulin, then we can fully realize the importance and far-reaching benefits to humanity of this scientific discovery.

4. Fisher, David, and Snell, M. W.: Jour. A. M. A., Vol. lxxxii, No. 9, p. 699, 1924; Jour. A. M. A., Vol. lxxxiii, No. 24, p. 1906, 1924.
5. Ginsberg, George: Jour. A. M. A., Vol. lxxxii, No. 19, p. 1517, 1924.
6. Thalheimer, William: Jour. A. M. A., Vol. lxxxii, No. 9, p. 696, 1924.
7. Banting, F. G.: Int'l Clinics, December, 1924.

ABSTRACT OF DISCUSSION.

Dr. D. W. Carter, Jr., Dallas: Insulin has measured up to everything that was expected of it from the beginning. I think the most important thing to stress in the treatment with insulin is the diet. It is vastly more important to watch the diet during the administration of insulin than without insulin. It is much better not to give insulin at all than to give insulin and have the patient be lax in his diet. A patient is likewise courting death, who will arbitrarily quit insulin without consulting his physician. One outstanding objection to insulin is that it must be given with a hypodermic needle.

Dr. W. E. Nesbit, San Antonio: The margin between hyper- and hypoglycemia is so narrow that the slightest overdose of insulin will give unpleasant results. In giving insulin, strict adherence to the diet is essential. Particularly is this true of the child that does not appreciate the value of the diet and will steal extras. This fact also brings up the question as to whether it is wise to trust a patient to administer his own insulin. The patients will have to be classified and judged as to their ability to stay with their instructions. I have noted many times that insulin will not bring the blood sugar down to normal even if there is no sugar in the urine. These cases must be watched, for, otherwise, they will receive bad effects from an overdose of insulin. The main problem of diabetes now is whether the pancreas is going to be able to recover its function after insulin has taken off the strain. I have had a few cases in which I have been able to reduce the dose of insulin while keeping the patient on the same diet.

Dr. C. M. Grigsby, Dallas: I think it is of importance that we do everything we can to treat these cases of diabetes without insulin. Unfortunately, many of these patients come to the physician expecting to be treated with insulin and are disappointed if it is not used. These people must have the whole question of diabetic diets explained and taught to them.

Dr. Stone (closing): In figuring out a patient's diet, 1 gram of protein per kilo of body weight is all that is necessary. I agree with those discussing my paper that the most important thing in the treatment of all diabetics is the training and education of the patient. If this is not done thoroughly the entire treatment will be a failure.

GRANTS FOR RESEARCH.

The Committee on Scientific Research of the American Medical Association announces that applications for grants should be mailed to this committee as soon as possible. Recommendations will be made, Jan. 30, 1926. Applications giving full details may be forwarded to the chairman of the Committee on Scientific Research, American Medical Association, 535 North Dearborn street, Chicago.—*Jour. A. M. A.*, Dec. 19, 1925.

PEPTIC ULCER*

BY

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It would manifestly be highly improper on this occasion for me to discuss at any great length the medical side of the ulcer problem. My function here today, I take it, is to present to you a few of the questions, the solutions of which are every day problems to medical men throughout the world.

One question, of purely academic interest, however, is the reason for the great apparent increase in peptic ulcer in the last few years. Not very many years ago when Dr. Carman and I sat together at the feet of Sir Wm. Olser, we heard duodenal ulcer mentioned only as a queer complication of burns, and rarely did we see a case of gastric ulcer. A survey of the literature unquestionably shows that, since the time of Virchow, at least, there has been a gradual increase in the incidence of peptic ulcer, and a very great relative increase in the incidence of duodenal ulcer when compared with that of gastric ulcer. Many speculations, but no proof, have been adduced to account for this very great increase in recent years. The history of ulcer is deserving of serious study for, bound up with the solution of the riddle of the increase in incidence, may, perhaps, be the solution of the riddle of its etiology.

It is very highly probable that most of us at some time during our lives, perhaps frequently, have ulcerations of varying degree at various places along the gastrointestinal tract. Many of these are transient—perhaps, though not transient, symptomless—and there is no question that peptic ulcers of all grades exist for long intervals of time and even heal, entirely without symptoms. Some ulcers, symptomless during their activity, later present symptoms due to their healing and scar formation.

We have long been familiar with pyloric obstruction as a sequel to peptic ulcer, but not until recently has anyone seriously considered the baneful effects which may follow scarring in the duodenum. For a number of years now since the work of Whipple on toxic products of the duodenum in complete duodenal stasis, we have had an explanation for the rapidly fatal intoxication of high obstruction. We must now accept the occurrence of chronic intoxication due to chronic duodenal stasis from scar formation which leads to an interference with the normal peristalsis and causes abnormal duodenal retention.

A terse description of the symptoms of peptic ulcer is most difficult. It is not as simple as might be indicated by the much quoted remark attributed to Moynihan, that the diagnosis can be made over the telephone; for fatal ulcers may have been symptomless up to a few hours before death, and the recognized syndrome of peptic ulcer may occur, when no ulcer or other lesion is present in the stomach. Peptic ulcer is extremely common and that the first and most important step in the diagnosis is to suspect it. Epigastric pain or distress is the prominent symptom of peptic ulcer. This distress varies from the slightest degree of discomfort to a very intense pain. The distress is usually in the midline just below the ensiform. It may be to the left or right of the midline and may spread upwards into the breast, and sometimes into the back. The distress usually appears in from one to three hours after a meal, lasts for a variable time, and then disappears spontaneously. This distress may usually be relieved by alkalis, by food, sometimes by water, by vomiting, and sometimes by lying down. *If alkalis do not relieve the distress, it is probably not due to ulcer.* There is usually, but not always, epigastric tenderness which is greatest at the time the discomfort is most marked. Nausea may occur, frequently at the height of the distress; if vomiting occurs, there is usually relief. Some patients induce vomiting to obtain relief. Vomiting occurring soon after eating, often indicates pyloric obstruction.

Hematemesis occurs in about 10 per cent of cases and is, of course, a valuable symptom, but care must be taken to keep in mind the other causes of this condition. Although hematemesis occurs in only ten per cent of cases, hemorrhage probably occurs in most all peptic ulcers. The amount of blood lost may be a slight ooze or it may be enough to result fatally. Continued small losses of blood may result in profound anemia and peptic ulcer may well be suspected in anemias of obscure origin. Examination of the stomach contents often shows hyperchlorhydria, though a few cases show low hydrochloric acid content and ulcer has even existed where hydrochloric acid was absent. The presence of yeast and sarcinae usually means pyloric obstruction.

The stools may be tarry when there has been a moderate or large hemorrhage. Occult blood is usually present and a properly circumscribed positive test for occult blood is of great importance in the diagnosis of ulcer.

The most valuable evidence in regard to peptic ulcer is to be obtained by the use of the Roentgen-ray, and on that point I have

*Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, Austin, May 5, 1925.

only to regret for us all that we do not have a Carman to make our diagnoses for us.

The duration of peptic ulcer is in many cases remarkable. Eusterman states that the average age of the ulcer patient at the Mayo Clinic is forty-five years and that the average duration of symptoms is nine years. The average age of ulcer patients in my limited experience is about forty and the average duration of symptoms slightly less than a year. In chronic ulcers with periods of activity alternating with healing or scarring, complications sometimes occur. The most common complication is pyloric obstruction. This should be suspected when there is persistent pain, relievable by alkalis, at a time when the stomach should be empty; when the stomach contains food seven hours or more after a meal; when there is vomiting, and when left-to-right undulatory waves can be seen in the epigastrium. In a great majority of the cases the obstruction is due to inflammatory edema or spasm, and may disappear with healing of the ulcer.

As excavation of an ulcer progresses, aided, perhaps, by an occasional infection, peritoneal irritation takes place. This is suggested by great local tenderness, with pain and tenderness when the stomach is empty, and with signs of local peritonitis. This local peritonitis with its exudate may lead to adhesions which produce marked fixations and deformities. If the protecting adhesions are not formed perforation may occur, producing a serious surgical emergency. In a small number the process is slow, though perforation does take place and a communicating abscess occurs. Sometimes an abscess forms without actual perforation. Sometimes these abscesses with their surrounding indurated walls form palpable masses, simulating neoplasm. At times, a pylorus hypertrophied by obstruction feels like a carcinoma. Carcinoma should be borne in mind as a potential complication of gastric ulcer, and any case which is not responding well to treatment should be referred to a surgeon, because of this potentiality alone. There has been a great deal of needless controversy over the question of medicine or surgery for peptic ulcer—needless, because the patient with the ulcer is going to continue to try medical "cures" first, and I am sure that no ulcer-bearing surgeon has ever failed to take some kind of a nonsurgical "cure" first.

W. J. Mayo, a great wit as well as a great surgeon, argues for surgery from a financial point of view, stating that few "can afford to make a pet of it," and that prolonged medical treatment is out of the question. An ordinary peptic ulcer is a most docile pet, and while prolonged treatment is necessary, this can be carried out, in many cases, without detention from business. Sippy and most other writers on peptic ulcer state that the treatment should begin by a three or four weeks' stay in bed; in the majority of cases, this is unnecessary and I have treated doctors, stenographers, farmers, bankers and housewives, successfully, without disturbing their routine occupations. Of course, I realize that going to bed lessens the motor activity of the stomach, but I also realize that the psychic effect of putting the patient to bed is at times very depressing, and that in the majority of cases it is unnecessary and unwarranted, for if the patient has not been put to bed by his trouble, he can usually be successfully treated while continuing his business.

Every one is agreed that surgery is the treatment indicated (1) when carcinoma is suspected, (2) in perforation, (3) in abscess, and, very rarely, because of perigastric adhesions or deformities. We should remember that unless excision of the ulcer is done, the ulcer is not cured, and that surgery should always be followed by a medical "cure." Surgery is also indicated for the removal of focal infections, the exact relation of which to ulcer is not established, but on general prophylactic principles they should be cleaned up.

The popular medical treatments for peptic ulcer in recent years have been founded upon the idea of securing rest for the stomach. The reason why peptic ulcers do not tend to heal is probably bound up in the answer to the old question, why does not the stomach digest itself; and upon the idea of nullifying the acid pepsin digestion, Sippy has founded the popular treatment of today. Its features are frequency of feedings, a great amount of fat, and neutralization of the hydrochloric acid. In the hands of Sippy and many others this treatment has been highly satisfactory. Recently, Warren Coleman has advocated the use of a diet of olive oil and white of egg with glucose per rectum; personally, as a patient, I should prefer Sippy's diet.

An interesting and important complication of the alkaline treatment is the occurrence of toxic manifestations in an occasional case, with an idiosyncrasy to alkalis, but this usually occurs in those cases in which it is necessary to use large amounts of alkali. The symptoms are bad taste, nausea headache, dizziness and aching joints; and these symptoms rapidly abate on withdrawing the alkalis.

In closing, I wish to reiterate that peptic ulcers are very common and that their in-

cidence is gradually increasing; that the first step in the diagnosis of ulcer is to suspect its presence; that ulcers may be symptomless and lead to grave illness without abdominal symptoms; that duodenal stasis with serious intoxication is not uncommon; that surgical and medical treatment are each necessary in the treatment of peptic ulcer, and that medical cure of most cases can be carried out without detention from business.

THE NEED FOR MORE INTELLIGENT COOPERATION BETWEEN THE INTERNIST AND THE SURGEON IN THE TREATMENT OF CHRONIC PEPTIC ULCER.*

BY

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Intelligent management of the semi-invalid ulcer suspect demands the closest possible coöperation between the internist and the surgeon. Neither the man who thinks in terms or surgical treatment only, nor the one who thinks in terms of medical treatment only, should rely solely upon his own judgment in making a final decision as to what should be done in any given case. The etiology of chronic peptic ulcer has never been definitely determined, the diagnosis is always difficult and uncertain, and surely no one can claim that the treatment has yet been standardized.

Perhaps 90 per cent of patients complaining of dyspepsia have no demonstrable disease of the stomach or duodenum, therefore, much less than 10 per cent have ulcer.

An unknown per cent of ulcer cases probably recover spontaneously. No one can say how many (if any) are permanently cured by *medical treatment.* Neither the history, the *x*-ray, nor the clinical laboratory can definitely determine the presence or absence of ulcer in any except the most typical cases. Some internists, however, have the temerity to diagnose practically every chronic dyspeptic as an ulcer case, whereas under the law of averages less then 10 per cent of dyspeptics actually show any pathology in the stomach or duodenum. Other internists refuse to even suspect ulcer, except in the presence of such grave complications as perforation or obstruction.

If a correct analysis could be made of the alleged ulcer cases treated by the average internist, it would doubtless show that the stomach trouble in a vast majority of these cases is due to diseases of the colon, appendix, gallbladder, and to other extragastric troubles, including pelvic diseases, infections of the tonsils, teeth and accessory sinuses, and to the patient's mental state, which is always a factor in dyspepsia, whether ulcer be present or not. It is rendering poor service to a patient suffering from gallbladder disease or appendicitis, for instance, to confine him to bed on a milk and egg diet for weeks at a time, during which his liver and pancreas are damaged and he becomes a hopeless psychasthenic, and, it is certainly not fair to administer rest cures and to advise delays and expensive hospital and nursing care in the case of a patient who can afford neither the time nor the money. All right-minded men must condemn the internist who through ignorance assists in spreading the misinformation that surgical treatment of peptic ulcer is attended with a high percentage of failures; that the much dreaded marginal ulcer is a frequent postoperative sequel, and that a gastroenterostomy is both dangerous as to life and disappointing as to remote results.

The internist very properly condemns the surgeon who is so ambitious to increase the volume of his work and so little impressed with the grave responsibility resting upon his shoulders that he will operate upon a stomach in which he can demonstrate no pathology, or upon one showing deficient motility, and, who overlooks a diseased gallbladder, appendix, or hemorrhoids, or who regards gastroenterostomy as so simple that he fails to properly locate the stoma with reference to the stomach wall, the jejunum and the colon, and who fails to provide a proper opening in the colon mesentery, or, perhaps, twists the jejunal loop.

It should be borne in mind that practically all ulcer cases treated surgically are medical failures; that most of them have been ill for a number of years; that many of them suffer from extra-gastric diseases, and that nearly all of them show marked derangements of the vegetative nervous system.

In 80 per cent of gastric ulcers and 90 per cent of duodenal ulcers, proper surgical treatment gives satisfactory results. Operative mortality accounts for 2 or 3 per cent of the failures, and, postoperative marginal ulceration for an additional 2 or 3 per cent. It thus seems that the surgeon, in spite of the fact that he deals only with medical failures, and in spite of errors in technique, failure to determine the original causes of ulcer, inability to control the postoperative care for a long period, or to improve the mental states of his patients, is able to render a vast majority entirely symptom free, and to definitely improve their health in from 80 to

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90 per cent of the cases operated. These results are certainly better than those secured by the surgical treatment of any other condition of equal gravity.

In dealing with patients who have been operated for ulcer, the internist sees only the postoperative failures. He is never consulted by the 80 or 90 per cent whose health has been improved, and, therefore, bases his opinion of the surgical treatment of ulcer *upon an experience limited to the 8 or 10 per cent of surgical failures.* It is to be hoped that the time is not far distant when the internist will cease to view with alarm a surgical procedure *capable of salvaging from 80 to 90 per cent of his own medical failures.*

It is unfortunate that so little attention is paid to the few outstanding facts concerning ulcer that are definitely known. As a basis for coöperation between the surgeon and the internist, the following facts should be kept in mind. The weight given these facts in determining the etiology, diagnosis and treatment of ulcer is, of course, always a proper matter for discussion. These and many other points bearing upon the ulcer problem should be considered from both the medical and surgical standpoint before any plan of treatment whatever is adopted.

That there is a distinct ulcer-bearing type of individual is beyond dispute. This patient, usually an active, energetic male, or a female of the masculine type, is compactly built, with short abdomen, broad costal arch, high arched diaphragm and with viscera firmly attached to the posterior abdominal wall. He thinks and acts quickly, and is intemperate in his habits of both work and play. His muscular responses are habitually excessive and out of proportion to the stimulus. He suffers much from functional disturbances and from spasticity in all of the hollow viscera, but rarely except for chronic callous ulcer of the stomach or duodeum shows actual pathology in the gastro-intestinal tract. He readily recovers from accidents and infections. He bears sedatives and narcotics well. Such an individual shows marked hypermotility, hypersecretion and hyperacidity in the stomach, which is increased by both psychic and reflex causes. He is prone to have violent tonic pylorospasm. For some reason, which perhaps the biologist can explain, these sensitive, intense, nervous persons manifest great irritability of the vagus and the entire vegetative nervous system during the spring and fall, while at other periods all the symptoms disappear. When such patients have peptic ulcer, the ulcer remains quiescent during the summer and winter months and apparently causes trouble only during the spring and fall, unless, of course, such complications as obstruction, perforation and extensive perigastric adhesions occur. These individuals suffer from spasticity of the terminal colon and their digestive symptoms are quite often apparently due entirely to mental states. In other words, the ulcer-bearing type presents certain anatomic peculiarities and a distinct unbalance in the vegetative nervous system, the vagus influence predominating.

In marked contrast to the vagotonic ulcer-bearing type is the visceroptotic, relaxed misshapen individual of the so-called sympathicotonic type. These persons, usually females or effeminate males, are sluggish mentally and physically. They have long protuberant abdomens, narrow costal arches, loosely attached viscera, and many other stigmata of degeneration. They are apt to be despondent and suffer from a feeling of inferiority, and quite often become insane. They suffer from atonic constipation and marked toxemia from slight causes. They do not recover from injuries and infections readily, but present pathology in the gastro-intestinal tract, rather than mere functional disturbances, as is the case with ulcer-bearing types. They are chronic dyspeptics, but rarely develop ulcer.

After gastrojejunostomy or gastroduodenostomy, every factor except spastic pyloric obstruction, hyperacidity, hypersecretion and dragging from an overloaded and overworking stomach remain, and, in addition, the patient has been subjected to a mutilating and apparently unphysiologic operation. In other words, after the failures of repeated "medical cures," 80 to 90 per cent of these chronic invalids are cured by a surgical operation which does nothing but relieve the stomach and duodenal wall of the ischemic areas resulting from prolonged spasm, permit an improvement in the blood supply to these ischemic areas, and change the chemistry of the stomach contents. Whether or not the patient remains a partial invalid from extragastric causes and constitutional diseases, the ulcer heals. *Gastroenterostomy and gastrojejunostomy are of value only in cases where local resistance, whether spastic or organic, has made adequate gastric motor function ineffective.*

When the general health in operated ulcer cases fails to be restored, the cause is often found to be due to some constitutional disease like syphilis, tuberculosis or malaria, to obstruction at the duodenojejunal angle, to a spastic colon, or hemorrhoids, or pelvic disease, or a diseased appendix or gallbladder, to diseases of the nose, throat, and mouth, to eye strain, and last but not least, to the condition of the patient's mind.

Chronic ulcer cases deserve the best care and thought that can be given to any invalid. It is just as great a crime to neglect necessary surgery, to waste the patient's time and money and to break down his morale by futile efforts to cure him by medical means as it is to do a gastroenterostomy upon an individual with deficient motor function, or upon one suffering from purely functional derangements of the digestive tract. The utter absurdity of feeding milk and eggs to a bedridden patient for weeks and months when he has a high degree of obstruction at the pylorus, or marked perigastric adhesions, or suffers from constitutional and reflex symptoms as a result of extragastric disease, like infection of the gallbladder and appendix, is too manifest to require comment.

The surgeon and the internist, while frankly admitting that the etiology of peptic ulcer is yet a mystery, that the diagnosis except by direct inspection is often impossible, that the patient's mind is always a factor in the production of symptoms (if not, at times, an actual cause of the nonhealing of the ulcer), and further, admitting that they are at a loss to explain even the chronicity, the periodicity, the reason for the pain or the food relief, not to mention the spectacular phenomenon of perfect cure in from 80 to 90 per cent of simple gastroenterostomies, make themselves ridiculous by quarreling with each other, instead of earnestly and humbly devoting themselves to the closest coöperation in observing and applying the few facts that have been definitely established. It is to call attention to the need for such coöperation that this paper is written.

THE ROENTGENOLOGIC DIAGNOSIS OF PEPTIC ULCER.*

BY

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Most clinicians realize that while the history and physical examination often indicate correctly the presence of a peptic ulcer, they frequently fail to furnish conclusive evidence, and are often emphatically deceptive. Further, the clinical findings will not distinguish with precision between gastric and duodenal ulcer, nor demonstrate a coexistence of both, nor reveal their size, depth and exact situation. With the roentgen-ray these distinctions and details can usually be determined. Thus the roentgenologic examination offers many advantages both in general and in particular.

For the efficient employment of the roentgen-ray in the diagnosis of peptic ulcer there are at least four fundamental requisites: (1) the examiner must keep in mind the morbid anatomy of peptic ulcer; (2) he must apply a technic that is designed to reveal them, whatever their character or situation may be; (3) he must be familiar with the varied roentgenologic appearances of normal stomachs, and (4) he must have a thorough acquaintance with the protean manifestations of gastrospasm.

MORBID ANATOMY OF PEPTIC ULCER.

Classified according to depth of excavation, gastric ulcers fall into three groups, namely, simply erosions, penetrating and perforated ulcers.

Simple erosions involve only the mucosa and are so shallow that they have no appreciable crater. Occasionally their surface area is considerable, but, as a rule, they are

Fig. 1. Niche of gastric ulcer.

exceedingly small, with a diameter of 2 or 3 mm. Sometimes they are more or less linear and are designated slit ulcers.

Penetrating ulcers are those which have burrowed into the gastric wall, but not through the serosa, and have a definite crater. The crater is usually round or oval, with a diameter of from 3 or 4 mm. to 3 or 4 cm., and its mucosal border may be overhanging. Its sides converge toward the floor, either smoothly or in successive terraces. A "callous ulcer" has a thickened and elevated margin.

Perforated ulcers are those which have punctured the serous coat. Either of two results may follow: the ulcer may be sealed off by adhesions, or the excavation may con-

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tinue into adjacent tissues and produce the so-called accessory pocket. Organs thus invaded include the pancreas, liver, spleen, lesser omentum and abdominal wall. Rare instances have been recorded of perforation into the thoracic cavity, gallbladder, duodenum and large intestine.

Carcinomatous ulcers are of two types. One variety has the gross appearance of a benign ulcer, but the microscopic examination reveals cancer cells in the border or

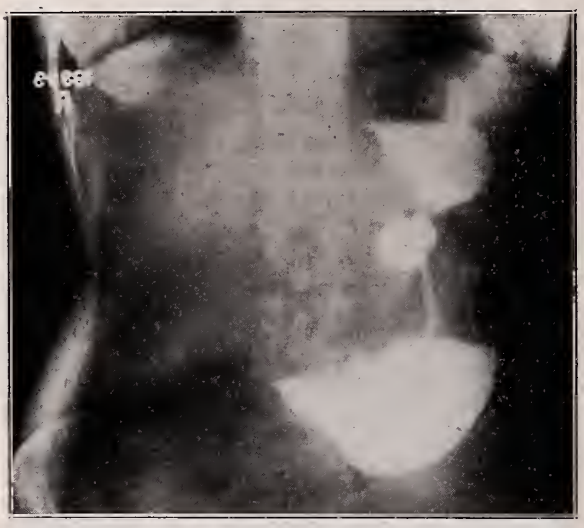

Fig. 2. Accessory pocket produced by perforated ulcer.

base. The other type is an ulcerous cancer, the crater lying wholly or chiefly within the tumor and surrounded by an overhanging border.

Although one is inclined to think of ulcers as being seated immediately on the lesser curvature, true "saddle ulcers" are rare. The majority are on the posterior wall near the lesser curvature, but occasionally they are a considerable distance from the curvature. The area of predilection is the middle third vertical portion of the stomach. Less common sites are the prepyloric segment, cardia, anterior wall and greater curvature. Ulcers are seldom found in the pyloric ring. Most ulcers are single, but two or more may exist concurrently. Multiple ulcers may lie close together or be widely separated.

In many respects the pathologic anatomy of duodenal ulcer closely parallels that of gastric ulcer. A large percentage perforate the duodenal wall. The perforation may be sealed by the adhesion of adjacent tissues, or the ulcer may continue its invasion into the liver or pancreas. The craters produced by duodenal ulcers are characterized by surface extension rather than depth. Their diameter may be 3 or 4 cm., although the average is 5 or 6 mm., and their depth 1 to 5 mm. Scar tissue varies in amount according to the duration of the ulcer. It may cause a mere puckering about the ulcer or marked stenosis. More than nine-tenths of the ulcers are found in the first 5 cm. of the duodenum, that is, in the bulbar portion, and, most frequently, on the anterior wall; occasionally, ulcers occur in more distal portions of the bowel, even as far as the papilla of Vater. Commonly single, an ulcer may have a companion, or contact ulcer, on the opposite wall, or several ulcers variously grouped and in various stages of evolution may be present. In from 10 to 12 per cent of gastric ulcers a duodenal ulcer is also present. Such concurrence is of clinical and surgical importance.

Considering the diverse pathologic characteristics of peptic ulcer, it is obvious that an efficient roentgenologic examination must be carried out to reveal not only the gross ulcers in accustomed situations, but also

Fig. 3. Incisura in the plane of the niche of a gastric ulcer.

those which are small, or in unusual situations.

TECHNIC.

At the Mayo Clinic, examinations are basically fluoroscopic. An experience of many years has so thoroughly proved the ease and efficiency of the screen examination that I would not venture to dispense with it, and I believe that its faithful employment by others will be equally rewarded. It saves time, exhibits a continuous moving picture

of the stomach in its successive phases, permits inspection at any angle of view or any position of the patient, and permits palpation and manipulation. Stripped of its minor details, the routine examination for all gastric and duodenal lesions comprises two principal features, a bariumized carbohydrate meal to test motility, and a screen examination six hours later at which time an aqueous suspension of barium is given.

The motor test meal consists of two ounces of barium sulphate in an equal portion of well-cooked cereal, and is given in lieu of breakfast. A retention from this meal after six hours, if no food has been taken meanwhile, is of importance for three reasons: (1) it is strongly indicative of an organic lesion of the stomach or duodenum; (2) in conjunction with certain other phenomena, to be mentioned later, it is diagnostic of duodenal ulcer, and (3) the presence of gastric retention has an important bearing on treatment.

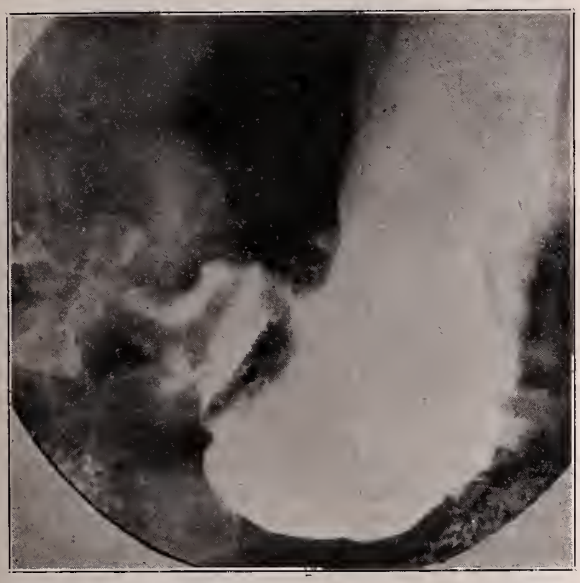

Fig. 4. Regional gastrospasm localized to the pyloric end. Niche of ulcer visible above on lesser curvature.

At the fluoroscopic examination the patient drinks a mixture of 4 ounces of barium sulphate in 8 ounces of water. Especial note is taken of the first swallows of the mixture as they descend from the esophagus into the stomach. After a small amount has been taken the walls of the stomach are approximated by palpatory pressure so that their internal topography can be inspected. Attention is then directed to the duodenum which usually fills to best advantage early. Its filling is also assisted by grasping the gastric antrum, applying the thumb of the right hand to the greater curvature and the fingers to the anterior wall, exerting pressure toward the pylorus. Blocking the distal portion of the duodenum by manual compression will sometimes be of aid. By pressure over the duodenal bulb its contents are thinned out to permit inspection of its walls. To perform any of these manipulations effectively, it is essential that the patient's abdominal muscles be relaxed; often this relaxation is assisted by seating him for a short time. After the stomach is filled, the patient is turned to various angles so that the gastric and duodenal contours can be shown in different views. In the oblique view, with the patient turned to the left, the posterior wall near the lesser curvature is outlined, and this region, being a favorable site of gastric ulcers, is studied with especial care. Following this, the patient should be examined on the trochoscope in the prone, supine, oblique, lateral and Trendelenburg positions. To conclude the examination, films are made for purposes of record and for further study.

ROENTGENOLOGIC SIGNS OF GASTRIC ULCER.

Gastric ulcer has but one sign on which the diagnosis can be made with confidence, and that is the visualized crater of the ulcer, the niche, or its exaggerated form, the accessory pocket. In favorable situations the niche is visible as a local prominence on the gastric silhouette. Many ulcers are so near the lesser curvature that in the sagittal view the niche projects sufficiently to be visible. The rare ulcers of the greater curvature are also apparent in this view (Fig. 1).

Ulcers on the posterior wall, in the vertical portion of the stomach, may often be brought into profile by turning the patient into an oblique or lateral position. These ulcers are sometimes revealed in the early stages of gastric filling. As the barium stream first enters the stomach it is likely to fill the crater of an ulcer high on the posterior wall so that its site is marked by a denser circumscribed area. A posterior ulcer in the lower portion of the stomach may be revealed as a local density by approximating the gastric walls. An ulcer may cause convergence of the rugae toward it, as can sometimes be observed during manipulation.

The niche is a characteristic, both of penetrating ulcers whose depth is appreciable and of perforated ulcers which are sealed off at the base. Hence these two varieties cannot be distinguished from each other roentgenologically. Although practically diagnostic of ulcer, the niche is not absolutely pathognomonic. Diverticula of the stomach also produce niches but are so rare that errors from this source are almost negligible. A bit of barium in the bowel adjacent to the stomach, or the bulge between two peristaltic

waves, as seen on a single film, may be confounded with a niche. The accessory pocket of a perforated ulcer which has invaded an adjacent organ is so striking that it will hardly escape recognition (Fig. 2). It is seen most commonly as a round or oval shadow projecting from the lesser curvature. Its diameter varies from 2 or 3 cm. upward. Quite often its barium content has a level upper margin capped by a bubble of air.

SECONDARY SIGNS OF GASTRIC ULCER.

A definite retention from the motor meal after six hours occurs in about half of all cases, regardless of the site or type of the

Fig. 5. Narrowing of pyloric segment by multiple prepyloric ulcers (See Fig. 6).

ulcer. Organic hour-glass stomach resulting from scar-contraction is met with occasionally. It occurs more often with perforated ulcers than with other varieties.

The incisura, found rather seldom, is a localized spastic contraction of the circular muscle fibres of the stomach in the plane of an ulcer, and is seen as an indentation of the curvature, commonly the greater (Fig. 3). It is usually narrow and its depth varies. Another form of muscular spasm is the regional. This is more often localized to the pyloric segment of the stomach, which is irregularly distorted (Fig. 4). Local fixation by adhesions consequent on perforated ulcer is sometimes evident during palpation. The examiner may easily deceive himself, however, as to the presence of fixation, and, at best, no great significance can be attached to it. Often, an ulcer-bearing stomach is hypotonic and large. Aside from stimulating a search for its cause, hypotonus is not an important sign and may exist without organic disease. Anomalies of peristalsis occasionally noted include absence of peristalsis from the ulcer-bearing segment, and, in obstructive cases, irregular hyperperistalsis or antiperistalsis.

VALUE OF SECONDARY SIGNS.

Since all these secondary signs may have causes other than gastric ulcer, they cannot be relied upon for diagnosis. When a niche is demonstrable, their aid is not needed. They have a certain importance, however, in two types of ulcer, namely, mucous erosions and prepyloric ulcers. A mucous erosion is too shallow to produce a recognizable niche. An incisura may point to the site of the ulcer, the rugae may converge toward it, and a residue from the motor meal may enhance suspicion of ulcer. It is imperative, however, to construe these signs with care.

Gastric ulcers in the vicinity of the pylorus, even though the depth of their craters is considerable, are extremely difficult to reveal as true niches. Usually the area around the ulcer is irregular, and there may be a residue from the motor meal. The irregularity is, no doubt, partly spastic and partly organic, but from the picture it is impossible to determine whether the filling defects are due to a gastric lesion or to gastrospasm from extrinsic causes (Figs. 5 and 6).

Ordinarily, spasm of the stomach from extrinsic causes will be extinguished by antispasmodics, while that due to an intrinsic lesion will persist. Hence, a second examination should be made after giving an antispasmodic to full physiologic effect. Any deformity which persists at the second examination is either organic, or, if spastic, due to a gastric lesion. One exception to this rule is to be noted; gastrospasm associated with duodenal ulcer will persist, but the presence or absence of a duodenal ulcer should be obvious at the first examination.

CARCINOMATOUS ULCERS.

Ulcers which reveal only microscopic evidences of cancer and produce niches of ordinary size, cannot be distinguished roentgenologically from benign ulcers. Very large ulcers are open to suspicion, for those with a diameter of 2.5 cm. or more are often malignant. Another variety of malignant ulcer, namely, the frank neoplasm with ulcerous excavation, has roentgenologic characteristics which indicate its nature. Its crater is deep but seldom projects external to the plane of the gastric mucosa. Surrounding it is an elevated, overhanging ridge of neoplastic tissue. If situated near the lesser curvature and subjected to palpatory pressure, the profile of its crater is crescentic. If situated on the posterior wall, distant from

the curvature, the crater is seen during palpation as a central density encircled by a translucent zone. Without exception, ulcers with such features have proved at operation to be malignant.

ROENTGENOLOGIC SIGNS OF DUODENAL ULCER.

The roentgenologic manifestations of duodenal ulcer are of two classes: (1) direct signs, localized to the duodenum, and (2)

Fig. 6. Photograph of specimen from case illustrated in Figure 5.

indirect signs, all of which are gastric. Direct signs comprise: (a) the niche, and (b) bulbar deformity without a niche. Usually, in the latter case, the niche is too shallow to be visible. The niche is seldom large and is often extremely small, so that careful observation may be necessary to discover it. Niches are most likely to be found on the mesial border of the bulbar shadow, but they are sometimes on the basal margin, or, very exceptionally, on the lateral border. By manual pressure over the bulb, a niche on the anterior or posterior wall can often be revealed as a small dense fleck within the fainter bulbar shadow. By this manipulation a bit of barium is sometimes pent up in the pyloric canal at the base of the bulb, and its shadow should not be mistaken for a niche. A central niche can sometimes be brought into profile by turning the patient into oblique positions.

In most instances a niche is accompanied by organic or spastic deformity, either in the vicinity of the niche or on the opposite border of the bulb. Occasionally a deep incisura on the opposite border points toward the niche, producing an hour-glass contraction comparable to that of the stomach. General deformities seem to be less common when the niche is centrally situated, and it is likely to be overlooked unless the bulb is manipulated as described. When the bulbar contour is extensively deformed, almost any projecting recess may be assumed to be the niche, and only the most careful comparison with the findings at operation will prove or disprove the assumption. Further, the presence of a niche is not essential for diagnosis, unless no other deformity exists.

Constant deformity of the bulb is the mainstay of diagnosis (Fig. 7). At times cicatricial contraction is largely responsible for it, but, as a rule, it is dominantly spastic and often entirely so. This is proved by the fact that in many cases with marked bulbar deformity at the roentgenologic examination, the bulb is found at operation to be quite undeformed. The distortion takes a multitude of shapes. The bulbar shadow may be deformed on one side alone, commonly the mesial side, or on both aspects, or only at the base. Usually, the irregularities are multiple. With deep bilateral indentations, the shadow may have the shape of an oak-leaf or a branch of coral. Occasionally, one side of the bulbar shadow is practically obliterated, and the pyloric canal appears to be off center. Stenotic ulcers sometimes give rise to a diverticular pouching, proximal to the stenosis.

It must be admitted that deformity of the bulbar shadow is not absolutely characteristic

Fig. 7. Deformity of bulb due to duodenal ulcer.

of ulcer, and that real or apparent deformity may be due to other causes. When the bulb is but partially filled, the barium may be distributed so erratically that the shadow deformity resembles that of ulcer. By palpatory pressure the cause of the distortion should be obvious, but on single films the deformity might be mistaken for that of ulcer. Inflammatory processes in the region of the duodenum, particularly pericholecystitis, may cause duodenal deformity by adhesions. However, in my experience, less

than two per cent of mistaken diagnoses have been attributable to such adhesions. In this connection it is worthy of mention that extensive adhesions often exist without distorting the duodenal outline. Cancer of the duodenum may produce deformity indistinguishable from that of ulcer, but it is extremely rare. In occasional instances deformity seems to result from spasm induced by disease of the gallbladder or pancreas, or by more remote lesions, but it occurs so seldom that it may virtually be disregarded. The crescentic indentation of the bulb sometimes produced by the gallbladder, and deformity resulting from pressure of the bulb against the spine, will hardly deceive the examiner.

The indirect signs of duodenal ulcer, which are manifested in the stomach, are interesting, and in certain combinations may be important. Hypertonus is a common feature of nonobstructive ulcer. With the advent of obstruction the stomach loses its tonicity and becomes enlarged. Hyperperistalsis occurs often. When obstruction is marked, antiperistaltic waves are sometimes seen. Hypermotility, as shown by an advanced position of the motor meal, is observed frequently. Obstructive ulcers cause gastric retention. Gastrospasm is exhibited as an incisura or an antral deformity.

As these secondary signs may be produced by other lesions, none, if taken singly, is diagnostic of ulcer. When bulbar deformity can be demonstrated, their aid is not needed. When obstruction is pronounced it is difficult or impossible to fill the bulb and establish the fact of deformity. In that event, the combination of a large stomach of normal contour with hyperperistalsis and a six-hour retention is quite as diagnostic of duodenal ulcer as is bulbar deformity.

Ulcers beyond the bulb sometimes set up the triad of signs mentioned, and thus their diagnosis is feasible. In the absence of these signs, local deformities in the distal portions of the duodenum can scarcely be relied on for diagnosis, because of the irregularities of contour produced by the valvulae conniventes in this portion of the bowel. Fortunately, ulcers in this situation are not common.

ABSTRACT OF DISCUSSION.*

Dr. Benjamin Orndoff, Chicago: The discussion of duodenal ulcer was a most interesting subject even before the *x*-ray was mentioned. The advent of the *x*-ray has greatly enlarged the field of diagnosis and I only wish that the treatment was as satisfactory as the diagnosis. In looking back over the field, I have often wondered if the *x*-ray has any advantage over the medical findings. In a given per cent of cases there is a definite finding of ulcer. There was a controversy at the Radiological Society, between Cole of New York, and Case of Battle Creek, as to the relative value of plates and fluoroscopy; both were correct. Dr. Carman has settled this by showing that it should be a combination of the two, and when we have reached a high degree of efficiency in the medical diagnosis the question will be settled. In treating these cases we find that radiological treatment does good and so does medical treatment. The findings in each method of treatment must be checked up and then we can all talk in the same language. The disease is being studied in Cook County Hospital. It has been noted that a case may come in with all the symptoms of ulcer and in a period of two hours all these symptoms may be relieved. I saw one patient in Presbyterian Hospital that had no evidence of ulcer, but gallstones were seen. On operation the patient was Hospital that had no evidence of ulcer, but gallbladder relieved all the symptoms. Symptoms do not always enable us to make the correct diagnosis. Dr. Carman was present at the Chicago meeting of the Radiological Society and doubtless heard a surgeon state that of 27 cases of ulcer he had operated, 24 had already developed jejunal ulcer. I am not sure how the diagnosis was made. All these cases are first treated medically. My assistant had a duodenal ulcer and the treatment was outlined for him. I believe he did reduce his cigarettes to one box a day, but he went right ahead and ate what he pleased—just as most medical men do. About two months after, I was called suddenly to see him and found he had lost what appeared to be a gallon of blood by vomiting. He was rushed to the hospital, a gastroenterostomy was done and the artery tied. He is supposed to still be on medical treatment, but he is eating steak and drinking some. Some of our internists are using physiotherapy with the other measures very successfully. At the University of Chicago the internists are using violet ray and other forms of active light to the back and the abdomen. It has a great influence on the calcium metabolism and other metabolic derangements. At present, there is so much enthusiasm over the results that I am about to be convinced.

Dr. F. D. Garrett, El Paso: I think that rest in bed is necessary to give most cases of peptic or duodenal ulcer the best chance of recovery. I always advise my patients that their chance for cure with medical treatment is better with rest in bed for a period of from two to four weeks, than if they continue about their work or are ambulant. I favor the Sippy treatment and believe that many failures are due to the treatment not being carried out properly. The patient is often neglected during the night. A check should be kept on the night secretion and alkalinization should, if necessary, be carried out at night as well as during the day.

These patients should be followed up for a long time after the course of medical treatment. Once or twice a year as long as the patient lives, he should report to his physician for observation. If this plan were carried out, the percentage of cures would be great and the mortality from treatment nil, which cannot be said of surgical treatment.

Dr. M. W. Sherwood, Temple: The papers and discussions today are quite typical of all broad-minded men; there is no field in medicine or surgery where cöoperation between the surgeon and radiologist is of more value. In making a diagnosis, the history plays a very important part. An ulcer may be symptomless, or there may be all sorts of symptoms with an ulcer. A careful history is sometimes difficult to obtain. After the history is obtained and the patient is thoroughly examined, he is referred to the radiologist, who is supposed to

*Discussion of papers by Drs. K. H. Beall, W. B. Russ, and R. D. Carman, constituting a symposium on peptic ulcer.

give a positive or negative finding. We must recognize the fact that the x-ray is, at times, unable to demonstrate the existence of an ulcer when one is present. When we have a definite history of ulcer without a definite x-ray finding, we are up against a hard proposition in deciding whether there is an ulcer or not. We are much better off if we have the radiologist to point it out to us.

Dr. Beall has made an interesting statement in saying that all surgeons who have ulcer have taken medical treatment first. It is the opinion in our clinic that all ulcers that are small and of short duration, are better treated medically. There are many factors to be taken into consideration; the distance of the patient from our direct supervision, the location of his home, and his ability to get the proper medical treatment. Many of these patients are unable to carry out the instructions given, so we must consider this factor. The treatment of most ulcers is largely medical, for a vast number of the cases never have hemorrhages or perforations, When it comes to advising for or against operation, we should consider the medical treatment the patient has had. If the symptoms have not been relieved, then the case is surgical. In gastric ulcer, a larger per cent are surgical than medical, because a larger per cent become malignant than in the duodenal ulcer. In duodenal ulcer, if the patient is still suffering pain, having hemorrhages, or symptoms of obstruction or perforation, I believe that surgery is indicated.

Dr. Russ spoke of giving the patient the same after-care as our postoperative goitre cases. This is very important. We should place more and more emphasis on the care of the patient after operation, taking into consideration whether he lives in the country and is a hard worker, and his other habits, or whether he is a clerk and living a sedentary life. We have been struck forcibly by the fact that the type of men who have ulcer are most frequently robust, such as we see in railroad men. More of this class come to us for operation than any other. I hope we all feel that the surgeon is not radical, and is careful about advising operations. This symposium is indeed enlightening, and I am especially interested in all that Dr. Russ has said. We are indebted to Dr. Carman for his presence, for there are none who can teach us more.

Dr. Tate Miller, Dallas: The radiologist has a hard job; as has been shown in the previous papers, he is called on to help treat and diagnose almost every illness, from whooping cough in infancy to malignancy in the very aged, and is therefore forced to keep up to date in all branches of medicine. The general practitioner and all of the various types of specialists constantly call on the radiologist for advice and diagnosis of cases in their respective lines. I believe that in the next few years the men who are limiting their work to a comparatively restricted field can more easily familiarize themselves with that part of radiology that is applicable to their work, than the radiologist can keep himself informed concerning all the specialties. Several of the specialists in Dallas are doing in their line of work, what I am attempting to do in gastro-enterology, namely, to learn enough about it to carry out the routine part that I need. In doing this it is imperative that we realize that we are not competent, finished radiologists in the full sense of the word, and should avail ourselves of frequent consultation with those among us who are expert x-ray men.

As Dr. Carman has mentioned, the internist frequently disregards the x-ray findings and is justified in so doing; but my impression is that if the internist had done the x-ray work himself and had seen the various abnormalities that the x-ray man sees, he would be more likely to give the x-ray findings their full significance. I am partial to the Sippy treatment for ulcer and frequently permit my patients to stay up. Of course, if the patient has had much hemorrhage or is in a generally weakened condition, he ought to be in bed, but, in my limited experience, as good results are gotten in the average case with the patient up and about as with him in bed.

Focal infections should receive some consideration; it seems just as inadvisable to treat a peptic ulcer without removing various evidences of focal infection, as it would be to thus treat a heart or a hypertension case.

I would like for Dr. Carman to tell us how he gets those well-filled, bulb pictures. Fluoroscopically, using the various manipulations that are ordinarily used, we can see these bulbs well filled out, but before we can make the necessary alterations in the machine to get the plate, the bulb has emptied itself.

Dr. Geo. M. Underwood, Dallas: It is indeed a pleasure to attend a symposium of this kind. I also wish to express my pleasure at having heard the papers by Drs. Carman and Orndoff. Dr. Beall's remarks on treatment are entitled to emphasis. I also agree with Dr. Russ that it is not sufficient to give a patient only a few weeks supervision; ulcer patients should be treated systematically, energetically, and over a sufficiently long period of time—just how long will depend upon the patient's progress. In the majority of cases at least one year is necessary. At any rate, the patient should report to the physician until his condition is known to be satisfactory.

I believe that hydrochloric acid should be mentioned first as a cause of ulcer. It is unquestionably necessary to the development of gastric or duodenal ulcer. Occasionally, ulcers are found in cases where the hydrochloric acid is present in normal or subnormal amounts, but an excessive quantity of acid is usually present, or has been present at some time prior to the development of the ulcer. Why is it that this inconsistency appears? Experimental work will often help us think in definite terms. It has been shown by Gaskill that the bladder in the young crocodile is in series with the gastro-intestinal tract. The sympathetic nervous system acting constantly to produce closure of an organ below a zone of dilatation is aided in this work by the activity of the parasympathetic, which acts intermittently or periodically to aid in emptying the organ of its contents. This is in line with the principle of double nerve innervation, these nervous influences being complementary, though not balanced. In other words, a certain muscle tone or posture is imposed upon this involuntary muscle, exactly as in a spastic tone of voluntary muscle. It is now believed that the stomach and duodenum are in like manner under the control of a nerve mechanism, or a neuromuscular mechanism, and it is probable that the stomach has a "retention posture" through the sympathetic influence. A disturbance of these nerve influences, for instance by the stress and strain of modern existence, or by chronic infection, may result in an interference with the normal activity. Now, a disturbance of this mechanism could have a bearing on the production of ulcer; first, by interfering with the proper discharge of the gastric contents, and second, by inhibiting the normal alkaline regurgitation of the duodenal contents. This is probably the explanation of the occurrence of ulcer in the presence of a normal acidity. In other words, the so-called normal secretion produces its effect over a prolonged period of time, whereas,

ordinarily, the excessive secretion may cause trouble in a shorter period.

The infective or toxic factors which have been considered as etiological in the production of ulcer cannot be dismissed entirely. These factors have been given first consideration in the past, but the present tendency is to minimize their importance. I am sure that no member of this section will ever be satisfied until he has at least advised the removal of all demonstrable foci of infection in any case suffering from gastric or duodenal ulcer.

Medical treatment should be more generally tried and more diligently applied. After it has been tried for one year and the patient's condition is still unsatisfactory, I feel sure the surgeon should be consulted. I have no idea that we are in disagreement in theory on this matter, and I know that we would not disagree in practice in a given case. I feel that our surgeons should endeavor to be good gastro-physiologists as well as surgeons. Any surgery done should be done in a most expert manner. Obviously, gastroenterostomy must remain the basis of gastric surgery. In the hands of the most skilled and the most judicious it is probable that more than simple gastroenterostomy can be done with lasting benefit to many patients.

Dr. Dalton Richardson, Austin: After looking at the slides Dr. Carman presented today it is easy to see why Dr. Russ thinks all the cases are surgical. The many pitfalls of the radiologist are shown, as well as the deficiencies of the *x*-ray. Dr. Carman's address should make the radiologists of Texas feel better; for if he makes mistakes, nothing else could be expected of us. It is a great relief to see that men like Dr. Carman show us their mistakes. One point we might observe here is that the diagnosis is macroscopical and not microscopical. A diagnosis may be made by the clinician by a deduction from the symptoms.

Dr. J. W. Torbett, Marlin: All the papers of this symposium have been very excellent and conservative. Most cases of ulcer have an excess of hydrochloric acid. Aside from the specific-affinity bacteria mentioned as a direct cause, another very probable cause is the present excessive use of sugar in our foods, which Chace, Kellogg, and others claim is six times as much as it was a century ago. Sugar causes much more acid secretion than the stomach can use. The old time syrup or sorghum contained vitamins and calcium too, which sugar does not have. Back of all infectious, proper food selection is a very potent caustive factor. McCarrison, in the *A. M. A. Journal* of January 7, 1922, recounted nine year's work in the Himalayan Mountains, in which he did over 400 major operations annually without finding a single case of gastric or duodenal ulcer, or cancer. He said the people lived an active outdoor life and ate simple foods like milk, eggs, bread, nuts, fruits and vegetables and did not use any sugar, alcohol or meats, except very rarely and then in small amounts. According to Sherman and Gettler's table, bread, meat and eggs all enter the blood as acid radicals, while milk, fruits, potatoes and other vegetables and also nuts, beans and peas, enter the blood as alkaline basis, naturally reducing the necessary gastric, urine and other acid end products of elimination. We habitually eat too much of the acid-forming foods, which may, if not rapidly eliminated or neutralized by the ammonia created by the liver, be neutralized by abstracting the buffer salts from the tissues, resulting in a relative acidosis, impaired nutrition and lowered resistance to infection. The much used Sippy treatment does not go back to the cause but simply neutralizes the acid present by alkalies, and these excessively alkaline salts have been shown by Grant and many others, to often be injurious to the kidneys, blood and other tissues. The ultraviolet light over the chest and stomach, has very quickly relieved the pain in many of our cases, until the warm milk and other bland alkaline foods can go back to the source of the trouble—the hyperacid hypersecretion, which of itself rather controverts the bacterial origin of the trouble, because such gastric secretion is decidedly bactericidal.

Dr. Beall (closing): As a general thing, the frequency of ulcer is not recognized. The surgeon and the internist agree fully on the method of treatment. for they are not all surgical nor are they all medical. It is not hard for a sensible body like this to agree upon the treatment.

Dr. Russ (closing): Dr. Carman has settled the problem of diagnosis. I have seen a case recover from ulcer after a nasal septum was removed, and the patient was even able to get life insurance. We are all too pessimistic in handling our ulcer cases. Our failures fall at the door of faulty diagnosis and treatment, and bad after-care. Any man who has the proper attention and afterward devotes himself to golf and other amusements which can remove the psychic disturbances, will get well. The character of the secretion in the stomach is not the cause. There is certainly a predisposition to ulcer in many of these people.

Dr. Carman (closing): Only by careful palpation can the bulb be satisfactorily distended. If any abnormality is visible during the screen examination, films are made for confirmation and record. However, dependence for the diagnosis is placed on the fluoroscopic examination.

Many radiologists use a heavy barium suspension for gastroduodenal examinations. In our early work we also employed thick mixtures, but we now use barium suspended in water and syrup of raspberry. With the thick meals, small ulcers were sometimes overlooked. The watery mixture of barium is thin and fills the craters of small ulcers better. It is easier to manipulate in the stomach. Palpation is started when the patient begins to take the meal, and is continued at intervals before the stomach is completely filled, for the walls of a full stomach are much harder to approximate.

THE MEDICAL PRACTICE ACT OF TEXAS, A JUST AND NECESSARY LAW.*

BY

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In a recent issue of the *Dallas Morning News* and of the *Dallas Journal*, and probably in a number of other Texas newspapers of the same date, was published an article by "Dr." H. C. Allison, an unlicensed medical practitioner of Fort Worth, in which he outlined a series of provisions for future control of medical registry and public health, which he and his unlicensed followers intend to present to the electorate of this State for approval by referendum, at the next general election, and later submit to the Legislature for enactment.

*A communication addressed to the *Dallas News* and appearing in that paper under date of January 24, 1926.

The attitude of these "doctors" on qualifications for legitimate medical service in Texas is like that of the vagrant who on a cold, stormy, winter night was permitted to enter the cheerful home of a kind-hearted gentleman, where he enjoyed the luxuries of a warm, cozy room, a soft, downy bed, and ate heartily of a hot, wholesome breakfast. Later, when the storm had abated, the "Vag." was handed his cap, bundle and a package of food for lunch and wished God-speed by the generous host, but he refused to leave, asserting that it was his inalienable right to enjoy the comforts of life in association with the lawful members of the household; that no conscientious court or jury would consider his indisposition to work—work being repugnant to him—or to acquire education sufficient to get remunerative inside occupation, which might induce brain fag, as a reasonable excuse for his ejectment from the comfortable home of another on a bleak December morning. "Such treatment," said he, "would be regarded as discriminative, monopolistic and inhuman."

"Dr." Allison's proposals deserve notice only because of his apparent misunderstanding of the importance to the citizens of this State of adequate public health laws and because of his lack of information on the comparatively recent history of Texas and the South.

For "Dr." Allison's benefit, and as a matter of information for those who are behind him in an effort to destroy our safeguards against decimation by contagious and infectious diseases, the State Board of Medical Examiners feels called upon to remind him and them that Texas had a "know-nothing medical practice act"—essentially the same as the one he proposes to submit to the voters of this State—from 1873 to 1901 (the doctor is only 53 years behind the progress of medical registration), when each of the more than 200 county judges of Texas selected for the administration of the practice act, a medical examining board composed of at least three "practicing physicians," who were authorized to "adopt all necessary rules and regulations for their guidance and control in the examination of applicants for the certificate of qualification." Under that law the applicant for medical license was not required to know anything nor to even be a graduate from a class "Z" diploma mill of which a large number existed and were doing a "land-office business." These institutions graduated "M. D.'s" in those days without loss of time or detention from business, and they'll do it again if the proposed provisions are adopted.

All that the law of 1873 required of a man or a woman who aspired to pose as an expert in the art of healing, was that he or she should appear before one or another of the 200 boards, many of which were composed of doctors who had never seen the inside of any kind of a medical college, good, bad or indifferent, and pass a "thorough examination," *in just what the law failed to say.* It may have been how to pull off an advantageous horse trade or how to get the best result from chopping cotton. But those examinees who seemed to get the highest general averages were the ones best qualified to select a good brand of liquor.

Those were the halcyon days for the lazy farm hand, the park-bench lizards and other ignorant indolents who would forsake the plow, the hod, or professional jury service, to flirt with skill and dignity, in order that they might prey upon unsuspecting, suffering human beings. Those were the days when a long beard, a long-tailed coat, a high hat and an assumed appearance of sanctity and wisdom meant qualification for medical practice to human vultures who were not even on speaking terms with the fundamentals of medical science, but who considered it their *inalienable right* to fatten on the misfortunes of suffering persons. But "them days are gone forever," thank God! Never again shall Texas turn back the clock in order to foster a bumper crop of parasites.

Evidently, these "unlicensed crusaders" who came to Texas to ignore its laws, defy its courts and take possession of its Legislature, know so little about the life-saving functions of medical regulation and public health service that they do not realize the absurdity or the impracticability of their proposals nor foresee the inevitable disasters that would befall Texas and Texans, as the result of a law that at once would reduce the efficiency of our medical profession and our public health service to the level of their efficiency in 1878, when yellow fever swept over the Southland, decimating its population, paralyzing its industries, stopping its traffic, cutting off its communication with the rest of the world, and surrounding it with a ring of steel bayonets; when masked death lurked in the school-room and the church, closing their doors; when it stealthily entered the mills and factories, silencing the hum of the spindle and the whir of the loom; when it traversed its broad acres of cotton and ripening sugar cane, leaving the products of a year's toil to rot unharvested in the fields; when, in three months, 20,000 of its bravest sons and fairest daughters were sacrificed on the altar of Ignorance; when in New Orleans, Mobile, Jacksonville, Savannah, Memphis, and other fair cities of

Dixieland, long lines of trucks, wagons and hearses traversed the streets each night of summer and early fall, hauling to their last resting place, under cover of darkness, the victims of the Yellow Scourge of the preceding day; when in the mansions of the rich, as in the cottage homes of the poor, whole families were wiped out by the pestilential visitations of the Yellow Death.

Equally numerous, though not as closely segregated, or as much feared, were the victims of pernicious malaria (congestive chills), estivo-autumnal fever (slow fever), typhoid, dysentery, the much dreaded cholera infantum (summer complaint), and ileo-colitis, which together took as the toll of death, 25 out of every 100 of our babies under three years old. The appearance of an epidemic of any one of these diseases in a community would now be regarded as a condemnation of its medical profession and of its public health service.

But the unhappy, impoverished Southland was to be rescued from the horrors of an over-shadowing, blighting pestilence which had taken a toll of more than 100,000 lives; for there came a physician—not to ignore its medical laws; not to defy its courts; not to complain that he had been discriminated against; not to demand that protective, public-health laws should be destroyed in order to make a berth for him; not with a picture, showing part of a tube from a fountain syringe passed half-way down the spinal canal of a human backbone and out through one of its foramina, with the upper end of the tube attached to the spout of a sprinkling can containing water, and the other end of the tube dripping, the water being poured into it from the can—but he came with a certificate of medical qualification in his pocket, with a microscope in one hand and a book on BACTERIOLOGY in the other. And with his coming came the dawn of a new day for the Southland, a day that marked the beginning of an era of progress, prosperity and happiness seldom equaled in the annals of history; for when this missionary of scientific medicine had snared his quarry and turned the searchlight of micro-bacteriology on its beak and its blood, the arch-enemy not only of the Southland, but of Mexico, Central America, South America and the West Indies—the "Stegomyia" (a species of mosquito), the emissary of the "Yellow Death," lay unmasked and impotent in the glare of modern medical science.

The Act of 1901 abolished the numerous district boards, created three state boards of medical examiners—a regular board, a homeopathic board and an eclectic board—and exempted the osteopaths. Because of its multiple boards and multiple standards (in effect, no standard) this law was almost as destructive of professional morale, educational standards, medical efficiency and public health, as the one that preceded it. If an applicant failed before one of the boards, he could go to another and get a license; so that it was not long until the certificate became a purchasable commodity, and Texas was flooded with an army of mercenary incompetents and crooks, many of whom are with us yet.

Under this law the State issued a limited license, that is, a license to practice allopathy only, or homeopathy only, or eclecticism only, depending upon the "school" from which the applicant graduated. But once licensed, the licentiate practiced as he pleased; the State had issued him a limited license, but it was powerless to limit his use of it, without employing an army of inspectors to follow and watch practitioners.

The law of 1901 became so obnoxious to reputable physicians of all systems that even the osteopaths, who were exempt from its provisions, joined with the other schools in a request for its repeal and for the enactment of a law providing for uniform, non-discriminative educational standards and examination tests on only the fundamental branches of medicine, which all medical practitioners, regardless of system or method, should be required to know, and must know in order to have a correct understanding of the human body in health and in disease, and without questions on the action or use of drugs nor on theory, practice or treatment of any kind, except the management of childbirth, minor surgery, such as the management of fractures and dislocations, the control of dangerous hemorrhage, the dressing of injuries, the removal of hopelessly diseased parts, or an appendix, and such other conditions as are managed in the same way by all systems of practice.

A bill containing the impartial educational and test provisions mentioned, approved in a conference representative of the practitioners of all schools of medicine in Texas at that time, was submitted to the Legislature and passed in 1907. The educational qualifications, examination tests and non-discriminative administrative provisions of this bill, unchanged by the amendments of 1923, are as follows (extracts from the law):

"The board of examiners shall consist of 11 men learned in medicine, legal and active practitioners in the State of Texas, who shall have resided and practiced medicine in this State under a diploma from a legal and reputable college of medicine of the school (system) to which the said practitioner shall belong, for more than three years

prior to their appointment; and no one school shall have a majority representation on the board.

"Applicants, to be eligible for examination (for license), must present satisfactory evidence to the board that they are more than 21 years old, of good moral character, and graduates of bona fide, reputable medical colleges. Such schools shall be considered reputable within the meaning of this law, whose entrance requirements and course of instruction are as high as those adopted by the better class of medical schools of the United States; whose course of instruction shall embrace not less than four terms of eight months each." (The repealed law required only five months. This is the only educational provision mentioned in the existing medical practice act).

"All examinations shall be conducted in writing, in the English language, and in such a manner as to be entirely fair and impartial to all individuals and to every school, or system, of medicine; the applicant being known to the examiners only by number, without names or other method of identification on examination papers, by which members of the board may be able to identify such applicants or examinees, until after the general averages of the examinees' numbers in the class have been determined and license ordered granted or refused.

"Examinations shall be conducted on anatomy, physiology, chemistry, histology, pathology, bacteriology, diagnosis, surgery, obstetrics, gynecology, hygiene and medical jurisprudence. Upon satisfactory examination under the rules of the board, applicants shall be granted license to practice medicine."

"Nothing in this Act shall be so construed as to discriminate against any particular school or system of medicine."

If there is a more perfect, non-discriminative medical law in existence, the Texas Board of Medical Examiners is not aware of it. The subjects prescribed for examination by the Texas Medical Practice Act, and the necessity for training in these subjects, briefly stated, are as follows:

Anatomy, which includes dissection, or removal one by one for intimate study, of the thousands of parts of a human body, treats of the name, size, shape, weight, location and relations with adjacent organs or tissues of every part of the body; the surface landmarks, as bony prominences, depressions, folds, lines, etc., on the surface, so that one may know just what vital organs or parts, such as the heart, lung, liver, spleen, kidney, stomach, spinal cord, brain, blood-vessels, nerves, or other tissues, lie directly beneath every inch of the skin, which itself is composed of several layers; so that one may know the location and boundaries of important organs, the origin, disposition and insertion of all muscles; the origin, course through the body or tissues, their relations in their course, and the distribution of blood-vessels, nerves, lymphatics, ducts and cavities; the arrangement and articulations of bones, etc. *Surely one could not be a competent medical man without thorough training in anatomy.*

Physiology treats of the phenomena and the processes of life, as the functions or work performed by every organ or part of the human body in the maintenance of health and life. Let any one of these organs or tissues fail to perform its particular duty and disease is an inevitable consequence. Without knowing the functions of the heart, brain, spinal cord, lungs, liver, spleen, pancreas, thyroid gland, pituitary gland, or even the functions of the skin, in health, how could one know the abnormal activities which are expressive of disease? Impossible!

Histology treats of the biologic, or microscopic structure of each organ or part of the body, which is composed of billions of tiny, living units, or cells, which are of different sizes, shapes and composition, and, like the different classes of workers in a great city, each type has a particular kind of work to perform. Without knowing the structure and appearance in health of such organs as the kidneys, liver, lungs, heart and brain, how could one possibly say they were diseased? How could a surgeon who had removed a small fragment of tissue for microscopic inspection say that it contained the cells of malignant cancer, if he did not know how to differentiate cancer cells from the normal cells of the organ or part from which the specimen had been removed? How could one say that a person has a disease of the blood if he does not know the appearance and structure of normal blood cells? He could not, any more than he could differentiate the structure of ham from that of beefsteak, if he had never studied the structure of either. The necessity for familiarity with histology is obvious.

Pathology treats of the nature of diseases and their causes; the changes in size, appearance and structure produced in organs and tissues by different diseases, as diabetes, diphtheria, pneumonia, tuberculosis, cancer, Bright's disease, neuritis, high blood-pressure, tumors, etc.; the symptoms, progress, probable duration and termination, or prognosis, of disease. Without knowing pathology one could not possibly say for certain that a patient has cancer, Bright's disease, syphilis, tuberculosis, locomotor ataxia, leukemia, pernicious anemia, or any other disease, since the classification of all diseases is based on pathology; neither could one say how long a patient with one of the chronic diseases would be likely to live; nor could he prognosticate the probable outcome of an acute disease. That one could be a competent medical practitioner without a knowledge of pathology is equivalent to saying that one

could be a good writer without a knowledge of language.

Bacteriology, the science that rescued the South, and the world, in fact, from pestilence; that built the Panama Canal (for it was Gorgas, the bacteriologist, and not the organizer of men, who made that accomplishment possible); the keystone of modern medical science, and the guardian of public health, is the science of germs, which are everywhere in nature, and many of them produce disease when they gain entrance to the human body. The bacteriology which concerns the doctor and which every man or woman who attempts to treat sick persons should be required to know, is that branch of it which deals with pathogenic, disease-producing germs, and more particularly with those which are transmissible from a sick person to a well person by contact or association and reproduce the disease in the person so exposed—such as tuberculosis, syphilis, meningitis, diphtheria, scarlet fever, infantile paralysis, "flu," smallpox, pneumonia, typhoid fever, whooping cough, measles and many others.

A practitioner of any system, or method, who is without sufficient information on bacteriology is a menace, and he or she should not be licensed by this or any other state.

That the germs which produce such diseases as typhoid fever, tuberculosis, syphilis, gonorrhea, erysipelas, lockjaw, plague, meningitis, malaria, and many others, are real, positive, living entities—provable to any person who cares to see them or to witness the effect of their introduction to the body of man or animal—there is no longer doubt nor room for discussion; and the practitioner, man or woman, who would attempt to discredit the positive truths of bacteriology is either a fool or a knave. In either event, he or she is too dangerous to be recognized by this or by any other state as competent to treat sick human beings. Such a practitioner is far more dangerous to his neighbors and to his community, than the incompetent plumber or ignorant electrician. The disastrous results of faulty plumbing may be confined to a single household; the faulty wiring may result in a conflagration with great loss of property, which is restorable; *but the ignorance or indifference of a medical practitioner may eventuate in wide-spread loss of human lives.*

Hygiene treats of the preservation or maintenance of health and the avoidance or prevention of disease. Every intelligent man, woman and child over ten years old, knows something about hygiene; and, of course, the doctor must know it.

Chemistry treats of the elemental composition and reactions of every particle of matter in the universe, organic and inorganic, animal and vegetable. All matter, living or dead, is constantly undergoing chemical transformation. Life is a dynamic process; therefore, the permanency of health depends upon the constancy of normal chemical and electrical reactions in the organs and tissues of a living body. Once these reactions are interrupted ever so slightly, discomfort or disease is certain to occur. If one should ask himself, "What keeps my body warm on a cold day?," he probably could not answer. But an educated physician could explain that it is the oxidation—combustion—in the organs and tissues of the body, of the food taken into it, producing heat and energy, as the coal burned in a stove produces heat and energy. The doctor must know chemistry, else he cannot explain the phenomena or functions of any of the vital organs, all of which are concerned with chemical reactions, for example; the saliva from the glands of the mouth, which is alkaline; the gastric juice of the stomach, which is acid; the bile of the liver and the pancreatic juice, which are alkaline, all contribute a part to the chemistry of normal digestion. If one of the digestive juices goes wrong, indigestion is the result.

How much service could be rendered by a doctor, hurriedly called at night to the bedside of a person who had swallowed, accidentally or intentionally, a deadly poison, if he did not know how to antidote such chemicals as arsenic, morphin, strychin, caustic potash, nitrate of silver, hydrocyanic acid, carbolic acid, sulphuric acid, muriatic acid, bichloride of mercury, chloral, and many others? One must act instantly—no time to call for help or go home and read up on the case. The undertaker will finish the job unless the doctor is prepared to render effectual service at once! But how could a doctor who had no knowledge of chemistry examine one's urine, blood, bile or gastric juice, or make any of the numerous chemico-physiological tests necessary to arrive at a proper understanding of his patient's condition? Insulin is a typical example of the doctor's adaptation of his knowledge of chemistry to supplying the need of the body cells of a diabetic patient. Chemistry is as essential to a practitioner as the use of his eyes or ears. Because there are those among us who neither know nor believe this, does not prove that it is not true.

Diagnosis is the capstone of medical practice; for without the ability to diagnose disease, one could not possibly know what to do for it. Diagnosis involves a knowledge

of all of the before mentioned, fundamental sciences, since it is from the deductions drawn from anatomy, physiology, histology, pathology, chemistry and bacteriology that a conclusion, or diagnosis, is ultimately made. To diagnose correctly, one must know the anatomy of the diseased part or organ; its physiology, or the function it performs; its normal appearance and cellular structure—histology; its present condition; the changed appearance and structure due to disease—pathology; the normal chemistry of its secretions or excretions and the chemical changes produced by disease, and finally, the nature of the pathogenic microörganisms, or germs, found in the organ or part, or in its secretion or excretion.

If a practitioner were hurriedly called in the night to attend a person who had been found unconscious in his room or on the street, he would have to determine whether the coma (unconsciousness) were due to the uremia of Bright's disease; to alcoholism (dead-drunk); to apoplexy (hemorrhage of the brain); to diabetes; to concussion or compression of the brain, due to an injury or a blow with a sand-bag; to knock-out drops; to syncope—fainting; to chloroform or ether narcosis; to inhalation of illuminating gas, charcoal fumes or gasoline vapors (carbon monoxide); to morphin or chloral poisoning, and a number of other things, before he could safely undertake any kind of management of the case, as a wrong move on his part might snap the last thread of life. Important as is the diagnosis of such a condition, which involves the life of only one person; how much more important it is to recognize and correctly diagnose dangerous, acute transmissible diseases, such as diphtheria, scarlet fever, meningitis, infantile paralysis, measles, whooping cough, smallpox, influenza (flu), bubonic plague, and other diseases, which if not correctly diagnosed and kept apart from others, may result in a great many deaths in a community? To become a good diagnostician requires a lifetime of study and research plus an analytical mind. A few physicians have become famous as diagnosticians, but the perfect diagnostician is yet to be born. Why, then, should sensible persons prattle about learning medicine in a few months or a few years? Nonsense!

Gynecology treats of the diseases peculiar to women, such as pelvic diseases, disorders of menstruation, ovulation, etc. How could one know anything about female diseases, unless he had made a particular study of them in order to differentiate tumors of the uterus or of the ovaries or tubes from tumors of other organs of the abdominal cavity? How could one differentiate a fibroid tumor of the uterus or a cyst of the ovary from pregnancy, if he did not know something about female diseases?

Obstetrics treats of the management of pregnancy and childbirth and the diseases incident thereto; the accidents; the malpositions of the child in utero; the disproportion between the size of the child's parts and the passages of the mother. How could one manage a case of placenta previa, one of the most dangerous conditions, or of ectopic pregnancy (pregnancy outside of the womb) which is almost certain to cause death if not promptly operated before rupture, if he does not know something about obstetrics? How could a doctor who had not been trained in obstetrics, handle a severe case of postpartum hemorrhage which may cause death in a few minutes, if it is not promptly stopped; or a case of eclampsia, convulsions before, during or after delivery? How could he change abnormal positions of the child—in which delivery is impossible—unless he knows how to correct them.

Surgery treats of the management of fractures, dislocations, etc., of bones; of cuts, stabs, gunshot wounds and injuries of various kinds; of the removal of hopelessly diseased organs or parts, or of malignant and other kinds of tumors, or of an appendix, and other conditions too numerous to mention? One could hardly claim to be a doctor without knowing something about minor surgery. Everybody knows of the necessary for expertness in surgery.

Jurisprudence treats of the doctor's relations to civil and to criminal laws, such as how to take dying statements, confessions, wills, bequests; to give expert testimony as to the probable cause of death in suspected foul play, poisoning, etc.; to determine whether a wound found on a dead person was made before or after death; to determine the fatality of a wound or injury; to settle a question of mental capacity in the making of a will, a contract, or to marry. To give expert testimony in civil and criminal cases.

The foregoing brief explanation of the subjects prescribed by the law for examination tests indicates why medical practitioners, regardless of system, should be required to know them. Every civilized country protects its citizens against exposure to such diseases as diphtheria, scarlet fever, meningitis, measles. "flu," smallpox, plague, typhoid fever, typhus, malaria, infantile paralysis, etc., and assures them protection against ignorance, indifference, incompetency and criminality on the part of medical practitioners, who must not be permitted to sell medical service or attention

until they have proved their ability to give the service expected of them. It is the duty of the State Board of Medical Examiners to determine whether those who seek a license to practice in this State have mastered the fundamental sciences necessary to a correct understanding of the human body in health and in disease, which is the least that should be required of them.

In justice to Dr. Rosser and other officers of the State Medical Association of Texas, accused of having attempted to create a monopoly in treatment in favor of the "regular school" and of having started a campaign of persecutory prosecutions for that purpose, it should be known that the educational qualifications and the examination tests prescribed by the existing law (which with one exception, an increase of the medical college term from five to eight months in each of the four years, are identical with the provisions of the law of 1907) were written and adopted by the members of the Board of Medical Examiners, a majority of whom are minor school representatives—homeopaths, osteopaths and eclectics. The officers of the State Medical Association of Texas simply approved and supported them, as was done by the eclectic, osteopathic and homeopathic representatives present, in a conference held at the Adolphus Hotel, Dallas, in the fall of 1922.

With reference to the prosecutions, the public should know that it is the duty of this Board to call upon the Attorney General to prosecute violators of the Medical Practice Act, whenever the local district or county attorney fails or refuses to do so. Since 1923, when the law was amended, this Board, which is self-supporting, and without funds with which to employ inspectors or get evidence on which to ask for prosecutions, appealed from time to time to the State Medical Association and other state organizations of registered physicians for their coöperation and support in an effort to enforce the law, which work had been long delayed because of lack of funds. But the matter of taking an active part in enforcement of the law was deferred by the state organizations in order that those who cared to do so might have a reasonable time to qualify, and thus avoid prosecution, until last May, when the coöperation asked for was promised and subsequently given. Since that time the State Medical Association, its president, Dr. C. M. Rosser, and the state associations of other schools of medicine in Texas, have given the State Board of Medical Examiners active assistance and support in its effort to perform a service it owes to the people of this State. But the statement that the State Medical Association, or its president, Dr. Rosser, has attempted to create a monopoly of medical practice in Texas or to conduct a campaign of persecution against any particular group of unlicensed practitioners, is on a par with many other statements that have been made by those who are openly and willfully violating the provisions of the Medical Practice Act.

To those who assert that the State Medical Association of Texas, which is the state organization of the "regular school," is attempting to control medical registration in Texas, it is necessary to say only that such an event is impossible under the existing law, which provides that the other schools shall always have a majority representation on the Board of Examiners.

The president of the existing board is a homeopath; the vice-president is an osteopath; the secretary is a homeopath, and the chairman of the reciprocity committee, which is the next executive position, is an eclectic. This distribution of the executive offices of the Board does not indicate that the regular members, five in number as against two for each of the other schools represented, have tried very hard to dictate the administration of the Medical Practice Act. To their honor and credit, it may be truthfully said that the representatives of the regular school on the Board have always been broad-minded, liberal and at times even generous in their consideration of applicants for license from the minor schools—much more so, in fact, than the representatives of the minor schools.

Since it is the judgment of the reputable medical profession of the world, and of the conscientious, qualified practitioners of all systems in Texas that the qualifications of our non-discriminative Practice Act are the least, consistent with public safety, that the State should require of those who seek authority to charge a fee for the alleviation of suffering and for the saving of human lives, why should such safeguards be destroyed in order to satisfy those who are unable or unwilling to meet them, and who have not made the slightest effort to comply with the law?

Firmly convinced that the Medical Practice Act demands from applicants for license the minimum education and professional training consistent with maintenance of the public health and with intelligent management of disease by practitioners of any system of healing, our own sons and daughters, graduates of our own high-class universities and of our own "Class A" medical colleges, have measured up to its provisions for 19 years without complaint. Why, then, should we lower or destroy our protective statute in or-

der to admit without qualification the graduates of low-grade institutions of other states, many of whom are without so much as a grammer school education, and all of whom are without adequate training in the essential fundamental branches of medical science?

It should be obvious to persons of average intelligence, that if pneumonia were due to a dislocated spinal vertebra, it could not be cured without reduction of the displaced bone; if diabetes were due to a pinched nerve, it could not be relieved until the pinch had been removed; if appendicitis were due to a distorted spinal foramen, it could not be cured until the foramen had been enlarged; that if all diseases were due to one or the other of the three causes mentioned, the hunchback would have every disease from A to Z in the medical catalogue; and yet, aside from the inconvenience and embarrassment of the deformity, the average hunchback is a fairly healthy, happy person.

Finally, the public should know that there is nothing in the Medical Practice Act that prohibits a registered physician from making use of any known means of cure; be he an osteopath, an eclectic, a homeopath, a chiropractor, or a "regular," he may use his own judgment; nor does the Act debar a registered practitioner of any of the schools mentioned, or any other, from membership on the Board of Examiners. The law is as impartial as human judgment could make it.

MISCELLANEOUS

MEDICAL STUDY TOUR TO EUROPE.

The Travel Study Club of American Physicians, founded at the London International Medical Congress of 1913, is announcing plans for its 1926 study tour. Sailing from New York on June 12, the party will visit clinics and medical institutions in the medical centers of Oslo (Christiania), Stockholm, Copenhagen, (optional to Berlin and Munich), Cologne, Heidelberg, Strasbourg, Berne, Zurich, Leysin, Geneva, Paris and London, returning on August 8. Dr. Louis L. Seaman of New York is president, and Drs. Fred H. Albee of New York, Edward B. Heckel of Pittsburgh and John P. Lord of Omaha, vice-presidents. Physicians in good standing, to the limit of fifty, are invited to participate in this tour, and the secretary, Dr. Richard Kovacs, 223 East 68th Street, New York City, will supply any further information desired.

TENTH ANNUAL CONGRESS ON INTERNAL MEDICINE.

The Tenth Annual Congress on Internal Medicine will be held at Detroit and Ann Arbor, week of February 22-27, 1926.

The congress is devoted to amphitheatre, bedside and clinical laboratory demonstrations as well as to symposia dealing with modern phases of internal medicine. Distinguished guests from abroad, Canada and the leading clinics of the United States will occupy prominent places on the program. Four days will be devoted to the work at Detroit and on one day, the society will be the guest of the University of Michigan at the newly opened eleven hundred-bed University Hospital.

All physicians who are interested in internal medicine and who are members in good standing of their local and national societies are cordially invited to attend the congress.

Hotel headquarters will be at the Book-Cadillac in Detroit. Information regarding reduced railroad rates, program, hotel accommodations, etc., may be secured from the secretary-general.

C. G. Jennings, M. D.,
President, American Congress on Internal Medicine, Detroit, Mich.

Frank Smithies, M. D.,
Secretary-General, 920 N. Michigan Avenue, Chicago, Ill.

INTERSTATE POST GRADUATE FOREIGN CLINIC ASSEMBLIES.

The 1926 foreign clinic assemblies given under the direction of the Interstate Post Graduate Assembly of North America will cover a territory, including the chief clinic cities of Italy, Switzerland, Germany, Austria, Czecho-Slovakia, Holland and Belgium.

The physicians are going abroad as the result of invitations extended, through this association, by the leading medical universities and institutions of the countries to be visited to the medical profession of North America. The members of the party will sail from New York on April 28th, a few days after the meeting of the American Medical Association at Dallas, Texas, thus, giving the physicians of the party plenty of time to attend this meeting. The large first-class cruising steamer, the "Araguaya," of the Royal Mail Steam Packet Line, has been chartered to take the physicians abroad. The party will land at Cherbourg and will go at once to Paris where the clinic assemblies start.

Dr. Carl Beck of Chicago, the general secretary for the foreign assemblies, is now in Europe completing the clinic arrangements for the assemblies. The clinic cities to be visited are as follows: Paris, Rome, Florence, Padua, Milan, Berne, Zurich, Munich, Vienna, Prague, Berlin, Amsterdam, The Hague, Utrecht, Leyden and Brussels. There will be extension assemblies held in all other principal medical centers of Europe following the main assemblies.

It is of interest to note that a large per cent of the distinguished teachers, who will instruct the assemblies, speak the English language. However, there will be a director chosen from the teaching staff in each of the clinics, who will be able to speak good English in case the chiefs do not. It will be the duty of this director to present the history cases and to answer questions as an interpreter. This is one of the reasons why Dr. Beck is now in Europe.

The assemblies are open to members of the profession who are in good standing in their state or provincial society with no restriction to territory. This invitation is understood to be extended to the entire medical profession of North America. Admittance to the clinics and privileges of the tour will be protected by the issuing of an admittance ticket or card. This rule will be strictly enforced in order to protect the association in its membership requirements, which is, that the physician must be in good standing in his state or provincial society. We will not be responsible or admit physicians to privileges unless they are members of the group.

The members of the party will be limited to a number that can be accommodated comfortably in both the clinics and hotels. After careful con-

sideration and consultation with the transportation department and the foreign clinics, this number has been fixed at five hundred, which includes members of the physicians' families. Necessarily this will limit the number of physicians to around three hundred.

Physicians may return home on three separate sailings during the main assemblies. First, at the end of the visit to Italy and Switzerland by way of Cherbourg; second, at the end of the visit to Holland from Rotterdam, and third, at the end of the assembly in Brussels from the port of Antwerp.

It is necessary in order to hold space for the assemblies to send to the office of the managing-director, W. B. Peck, Freeport, Illinois, the sum of $65.00 per person. If for any reason the applicant for space decides that he cannot attend the assemblies, the money will be refunded immediately, if this demand is made as early as six weeks before sailing time. A booklet of information pertaining to the assemblies and prices for same may be secured free of charge by writing the managing-director's office.

Ladies' Entertainment: Besides the extensive sight-seeing and travel features, arrangements are being made for a ladies' entertainment committee in each of the clinic cities. The committees will be composed of the wives of the clinicians and prominent citizens.

In offering the foreign clinic assemblies this association has the hearty coöperation and assistance of the most distinguished teachers and clinicians in both North America and Europe. The organization in its endeavors hopes to combine with its success in post-graduate work a corresponding advancement in international good fellowship among the members of the medical profession of the different countries of the world.

A second section of the assemblies for a limited number will be conducted during the summer months for those who are unable to take advantage of the April sailing. The members of the party will leave New York, S. S. "Pittsburgh," on June 19th, return sailing, August 13th, from Antwerp, S. S. "Zeeland."

The officers of the assemblies are:

Dr. Charles H. Mayo, chief executive and general chairman, Rochester, Minnesota.

Dr. Carl Beck, general secretary, Chicago, Illinois.

Dr. William B. Peck, managing-director, Freeport, Illinois.

Mr. Reeve Chipman, manager of transportation, Boston, Massachusetts.

COMMENTS ON NEW CONSTITUTION AND BY-LAWS.

The following report to the Grayson County Medical Society, by Dr. M. M. Morrison of Denison, delegate to the State Medical Association, is published upon the request of the Grayson County Society:

"After thanking you for having been honored as your representative to the State Medical Association, I wish to report briefly the transactions of the House of Delegates, and to make some suggestions, not only for your consideration but for the consideration of the organized profession in Texas.

"The meeting at Austin was well attended, and I am informed that the programs of the scientific sections were interesting and edifying. The city of Austin accorded us a generous welcome, and no effort was spared to make us enjoy our visit.

"The House of Delegates transacted more important business, perhaps, than at any previous meeting. You recall that two years ago a committee was appointed to revise our constitution and by-laws. One year ago, the committee not being ready to report, was given another year, and at this meeting it presented its final report. With few changes the report was adopted, and we now have a new constitution and by-laws. They will be published in our JOURNAL.

"With the exception of one matter, our new constitution is probably the best of its kind. It is faulty, I think, in that it continues the practice of granting *ex-officio* membership in our legislative assembly to executive officers of the association. I believe this practice both unsound and unsafe.

"In no representative form of government with which I am familiar, is the active participation of judicial and executive officers in legislative affairs permitted. In the American Congress, executive and judicial officials have no standing and no privileges, but in the English parliament administrative officials advise and participate in discussions. The practice tends to centralize and perpetuate power. These ex-officio members associate constantly together and become of one mind. The consequence is that they, being men of ability and activity, control the house of delegates, and through it the organization in the state. True, they are not numerically in the majority, but an organized minority is more powerful than an unorganized majority, and their influence predominates. The fundamental theory of democracy is founded upon complete separation of governmental affairs into three departments—legislative, executive and judicial, and any interference, one with the other, perverts the government and defeats its mission.

"I am not criticizing the past policies or practices of our own ex-officio members, for it is perhaps true, as has been said by many, that they are and have been men suited to control, and more capable of exercising caution, judgment and wisdom than many delegates who study these matters once a year, and perhaps not so often. It is probable that we have a stronger association under their control than we would have otherwise, but this system of centralization, and perpetuation of power and influence, is not inspiring to the personnel of the profession; and, after all, we are entitled only to an organization as good as we are.

"The House of Delegates is our legislative body. It should be composed of men direct from the field, acquainted with the conditions and with the members of the profession. Such men are responsive to the wishes of their constituents, and are directly representative of the masses.

"If we continue this practice the inevitable result will be to destroy confidence, and paralyze initiative in our members. Even now the State Association is occasionally referred to as "Their Association," and sometimes we hear it denominated "Their Clique."

"Believing that our welfare in the future depends upon confidence, membership and interest, as your delegate, I presented to the House of Delegates for consideration at the next annual meeting an amendment proposing to limit the activities of the *ex-officio* delegates, and denying to them the privilege of voting.

"For the present year our annual dues were reduced to ten dollars. Previously I thought, and I still believe, that seven or eight dollars would be equitable and just. The contest at Austin was between those who advocated a five-dollar assessment and those who thought a greater amount was necessary. Manifestly, our association cannot give us the best service and the best JOURNAL with a yearly assessment of five dollars. I think we are justified in hoping for another reduction at the next annual meeting.

"The by-law creating and fixing the duties of the

legislative committee is unchanged. At our next annual meeting I hope to see it so changed as to preclude the repetition of some unfortunate errors of the past. It occurs to me that all of our legislative and educational activities should be directed from the office of the State Secretary, that all of our efforts may be correlated and duplication of activities avoided.

"It is evident that the organization will engage during the coming year, in a campaign to enforce the Medical Practice Act. I think it a duty and a privilege for each of us to assist in every manner consistent with self-respect and ethical practice.

"I adjure each of you to study these propositions and to use your influence for what you think is the best course to pursue."

The following communication from Dr. Cook has been withheld from publication until the subject of the new Constitution and By-Laws was dealt with in the JOURNAL, editorially, hoping that by the combination the By-Laws could be brought more forcefully to the attention of the members of the association:

"To the Editor:

"I trust that you will be able to find space for this communication, in your valuable JOURNAL. I believe that the subject matter is of sufficient importance to justify its publication.

"In the June issue of the JOURNAL, on page 132, is found a record of my protest against the illegal action in placing before the House of Delegates the revision of the Constitution and By-Laws. The legality of this action depends upon the legality of the adoption of a prior amendment, the history of which is substantially as follows:

"The Reference Committee on Amendments to the Constitution and By-Laws, at the 1924 meeting, brought in a recommendation that the following amendment be passed:

'Amendment to Section I, Article XL of the Constitution. Provided further, that a total and complete revision of the Constitution and By-Laws may be accomplished at any regular session, notice having been given of such intention in the House of Delegates in a preceding session of the association.'

"This amendment was illegally acted upon at the San Antonio meeting, but appeared in the minutes as having been passed.

"After I had pointed out this illegality during the Austin meeting, the amendment was again allowed to come before the House of Delegates and was again illegally passed. This illegality nullifies the action, and also nullifies the action of the House in considering and adopting the revised Constitution and By-Laws. This is my official protest against this illegality, and it is based on the following points:

"Quoting from the Constitution of the State Medical Association of Texas, adopted in 1916, Article XI, Amendments, reads as follows: 'The House of Delegates may amend any article of this Constitution, by a *two-thirds vote of the delegates registered* at any annual session, provided that such amendment shall have been presented in open meeting at the previous annual session, published in the official organ of the association, and sent officially to each component county society at least two months before the session at which final action is to be taken.'

"This section was violated almost in its entirety. There was no roll call to ascertain the number of delegates present when the action was taken. Reasoning, it would seem that there lacked greatly of the required two-thirds of the registered delegates being present, much less voting favorably. There were 96 delegates registered, and 33 ex-officio members in the House, making a total of 129. Two-thirds of this number would be 86. The election of president is admittedly the most interesting thing that occurs in the House, and the one vote that is usually cast by every member of the House of Delegates that is at all interested in the proceedings. There were 94 votes cast in this presidential election, and when we come to the selection of a meeting place we find that there were sixty-nine ballots cast. So, if there had only been nine members of the House, who voted in the election of president, absent when the Constitution and By-Laws were considered, then there was not the requisite 86 members present and this action could not be legally taken.

"The amendment providing for the introduction of the complete revision was published in the June, 1924, JOURNAL, as a matter that had been passed, and not as a pending business, so there has been no publication in the official organ of the association of this amendment, as contemplated by Article XI, but even if this point be passed, then it is certain that no official notice of this pending amendment had been sent to any component county society in the state; certainly none was received in Harris County.

"The above may seem to be quibbling, and we may say that the will of the majority was observed, but even so, there is a very vital principle underlying the matter. This Constitution is supposed to safeguard the rights of the profession, and if it can be juggled and played with at any one's desire, then our rights vanish. All action of our body, must be in strict obedience to our own organic law. So proceeding we are safe, and it is the duty of our officers to see that all actions taken are in conformity with our law, and to rigidly resist all effort to railroad through the House of Delegates, any business, no matter how meritorious, or how badly needed, that will let the bars down for future inroads that will eventually destroy our organization."

EDWARD F. COOKE.

Houston, Texas, July 6, 1925.

THE SECTION ON DERMATOLOGY AND SYPHILOLOGY.

In connection with the Dallas Session, the Section on Dermatology and Syphilology will again conduct an exhibit. The committee in charge is composed of E. D. Crutchfield, Galveston, Texas; Fred D. Weidman, Philadelphia, and I. L. McGlasson, San Antonio, Texas, chairman. According to the plans of the committee, the exhibit will not be miscellaneous but planned to illustrate the various phases of cancer, in all stages. It is intended to make it of interest to the profession at large as well as to the members of the section.

Circular letters explaining the exhibit, with application blanks, will be mailed to those who registered in the Section on Dermatology and Syphilology during any of the last five sessions. Others who desire this literature may obtain it by communicating with I. L. McGlasson, City National Bank building, San Antonio, Texas. All applications must be sent to Dr. McGlasson by February 1.—*Jour. A. M. A.*, Dec. 26, 1925.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Special Pertussis Vaccine.—A pertussis bacillus vaccine (New and Nonofficial Remedies, 1925, p. 353), marketed in 5 cc. vials. Cutter Laboratory, Berkeley, California.

Coco-Quinine.—Each 100 cc. contains quinine sulphate 2.19 gm. (10 grains per fluidounce), suspended

in a syrup flavored with chocolate, yerba santa and vanillin, and containing sodium benzoate, 0.18 gm. per 100 cc. and alcohol, 4 per cent. Eli Lilly & Co., Indianapolis.

Concentrated Culture of Bacillus Acidophilus-P. D. L.—A milk culture of Bacillus acidophilus supplied in vials containing 8 cc. It contains not less than 300 million viable organisms (B. acidophilus) per cc. at the time of sale. For a discussion of actions and uses, see Lactic Acid-Producing Organisms and Preparations (New and Nonofficial Remedies, 1925, p. 191.) Physicians Diagnostic Laboratories, Berkeley, California.—*Jour. A. M. A.*, Jan. 2, 1926.

Scarlet Fever Streptococcus Antitoxin Concentrated.—A scarlet fever streptococcus antitoxin (*Jour. A. M. A*, May 2, 1925, p. 1338), prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. It is marketed in packages of one syringe containing 6 cc. (prophylactic dose) and in packages of one syringe containing 12 cc. (therapeutic dose). E. R. Squibb & Sons, New York.

Scarlet Fever Immunity Test.—The toxin of the hemolytic streptococcus of scarlet fever is used to determine those persons who are susceptible to scarlet fever. The toxin is first standardized on human beings and diluted so that 0.1 cc. represents a skin test dose. The test dose is injected intracutaneously on the forearm and the degree of susceptibility is determined at the end of from 22 to 24 hours. The toxin is used also for active immunization. For this purpose it is injected subcutaneously at weekly intervals; from three to five doses of increasing strength are given.

Scarlet Fever Streptococcus Toxin for Dick Test-Squibb.—It is prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. Marketed in packages of one vial containing sufficient toxin for ten tests; in packages of one vial containing sufficient toxin for 100 tests. E. R. Squibb & Sons, New York.

Scarlet Fever Streptococcus Toxin-Squibb.—It is prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. Marketed in packages of five vials of toxin containing increasing doses; in packages of fifty vials, representing ten immunizations. E. R. Squibb & Sons, New York.

Sulpharsphenamine - Mallinckrodt. — A brand of sulpharsphenamine (New and Nonofficial Remedies, 1925, p. 55). It is marketed in ampules containing, respectively, 0.1, 0.2, 0.3, 0.4, 0.5 and 0.6 gm. Mallinckrodt Chemical Works, St. Louis.—*Jour. A. M. A.*, Jan. 16, 1926.

Pollen Extracts-Arlco.—In addition to the products listed in New and Nonofficial Remedies, 1925, p. 288, the following have been accepted: Acacia (Scap.) Pollen Extract-Arlco; Alfalfa Pollen Extract-Arlco; Ash Pollen Extract-Arlco; Box Elder Pollen Extract-Arlco; Burning Bush Pollen Extract-Arlco; California Walnut (Black) Pollen Extract-Arlso; Cocklebur Pollen Extract-Arlco; Cosmos Pollen Extract-Arlco; Fleabane (Common) Pollen Extract-Arlco; Goose Foot Pollen Extract-Arlco; Hemp Pollen Extract-Arlco; Indian Rice Pollen Extract-Arlco; Indian Wormwood Pollen Extract-Arlco; Live Oak Pollen Extract-Arlco; Marsh Elder Pollen Extract-Arlco; Meadow Fescue Pollen Extract-Arlco; Mugwort Pollen Extract-Arlco; Oat Grass Pollen Extract-Arlco; Olive Pollen Extract-Arlco; Pine Pollen Extract-Arlco; Plantain Pollen Extract-Arlco; Prairie Sage Pollen Extract-Arlco; Poplar Pollen Extract-Arlco; Privet Pollen Extract-Arlco; Red Fescue Pollen Extract-Arlco; Rye Grass Pollen Extract-Arlco; Slender Ragweed Pollen Extract-Arlco; Sweet Clover Pollen Extract-Arlco; Sweet Vernal Grass Pollen Extract-Arlco; Sycamore Pollen Extract-Arlco; Thistle Pollen Extract-Arlco; Velvet Grass Pollen Extract-Arlco; Western Cottonwood Pollen Extract-Arlco; Western Ragweed (Giant) Pollen Extract-Arlco; Winter Fat Pollen Extract-Arlco; Yellow Daisy Pollen Extract-Arlco. Arlington Chemical Co., Yonkers, N. Y.

Pollen Extracts-Cutter.—Liquids obtained by extracting the dried pollen of plants. For a discussion of the actions and uses, see Allergic Protein Preparations (New and Nonofficial Remedies, 1925, p. 278). Pollen extracts-Cutter are used both for diagnosis and treatment. They are marketed in capillary tubes and in packages of five vials representing graduated concentrations. The following preparations have been accepted: Annual Salt Bush Pollen Extract-Cutter; Arizona Ash Pollen Extract-Cutter; Bermuda Grass Pollen Extract-Cutter; Black Walnut Pollen Extract-Cutter; Canary Grass Pollen Extract-Cutter; Careless Weed Pollen Extract-Cutter; Coast Sagebrush Pollen Extract- Cutter; Cocklebur Pollen Extract-Cutter; Common Ragweed Pollen Extract-Cutter; Cottonwood Pollen Extract-Cutter; False Ragweed Pollen Extract-Cutter; Giant Ragweed Pollen Extract-Cutter; Johnson Grass Pollen Extract-Cutter; June Grass Pollen Extract-Cutter; Lamb's Quarters Pollen Extract-Cutter; Live Oak Pollen Extract-Cutter; Marsh Elder Pollen Extract-Cutter; Mugwort Pollen Extract-Cutter; Olive Pollen Extract-Cutter; Orchard Grass Pollen Extract-Cutter; Plantain Pollen Extract-Cutter; Rabbit Bush Pollen Extract-Cutter; Red Root Pigweed Pollen Extract-Cutter; Red Top Pollen Extract-Cutter; Russian Thistle Pollen Extract-Cutter; Rye Grass Pollen Extract-Cutter; Sagebrush Pollen Extract-Cutter; Shadscale Pollen Extract - Cutter; Sheep Sorrel Pollen Extract-Cutter; Timothy Pollen Extract-Cutter; Velvet Grass Pollen Extract-Cutter; Western Ragweed Pollen Extract-Cutter; White Oak Pollen Extract-Cutter; Wild Oat Pollen Extract-Cutter; Yellow Dock Pollen Extract-Cutter. Cutter Laboratory, Berkeley, California.

Concentrated Pollen Extracts - Swan - Myers. — In addition to the products listed in *Journal A. M. A.*, May 30, 1925, p. 1634, the following has been accepted: Mixed Ragweed Concentrated Pollen Extract-Swan-Myers. Swan-Myers Co., Indianapolis.

Croup Protein Extracts Diagnostic-P. D. & Co.—In addition to the products listed in New and Nonofficial Remedies, 1925, p. 294, the following have been accepted: Protein Extracts Diagnostic-P. D. & Co. Group 28 (Bermuda Grass, Johnson Grass, Orchard Grass, Red Top, Timothy); Protein Extracts Diagnostic-P. D. & Co. Group 29 (Halberd-Leaved Orache, Russian Thistle, Western Water Hemp, White Goose Foot, Yellow Dock); Protein Extract Diagnostic-P. D. & Co. Group 30 (Burweed Marsh Elder, Cocklebur, Common Ragweed, Giant Ragweed, Rough Marsh Elder, Western Ragweed); Protein Extracts Diagnostic-P. D. & Co. Group 31 (Indian Hair Tonic, Mugwort, Prairie Sage, Sage Brush, Wormwood Sage). Parke, Davis & Co., Detroit.—*Jour. A. M. A.*, Jan. 23, 1926.

Insulin-Mulford, 10 Units, 10 Cc.—Each cc. contains ten units of insulin-Mulford (*Jour. A. M. A.*, June 20, 1925). H. K. Mulford Co., Philadelphia.

Insulin-Mulford, 20 Units, 10 Cc.—Each cc. contains twenty units of insulin-Mulford (*Jour. A. M. A.*, June 20, 1925). H. K. Mulford Co., Philadelphia.

PROPAGANDA FOR REFORM.

The Hoxide Cancer Cure.—There is being exploited from the town of Taylorville, Illinois, a "cancer cure" put out by one Harry M. Hoxsey and sponsored by the Chamber of Commerce of Taylorville. The treatment is a secret one, of course, and is adminis-

tered by a concern calling itself the Hoxide Institute. The Hoxide Cure is essentially the escarotic treatment with arsenic as the base. Specimens of the stuff examined at the A. M. A. Chemical Laboratory when the Hoxsey outfit was in Chicago, showed the presence of arsenic in large quantities. What happens when the "cure" is used can easily be imagined by physicians. Unfortunately the public has no such knowledge. In the case of some of the patients that were treated in Chicago by the National Research Cancer Institute and Clinic, the arsenic applied to the malignant tissue ate into the blood vessels and the patients bled to death.—*Jour. A. M. A.*, Jan. 2, 1926.

The Anemias Due to Radioactive Substances.—Reports have been published on the dangers of radioactive substances and warn against subtle menaces that represent practically a heretofore unrecognized form of occupational poisoning. These reports bring out that the ingestion of radioactive substances may act as irritants to the adjacent erythroblastic and leukoblastic centers and may produce a severe anemia and stimulate pernicious anemias of the regenerative and aplastic types. The demonstrated cell-destructive potency of radioactive substances and the unsuspected late effects which they may initiate should serve as a vigorous warning to all who promote radioactivity as a therapeutic measure. —*Jour. A. M. A.*, Jan. 9, 1926.

Trepol and Neotrepol Not Acceptable for N. N. R. —The Council on Pharmacy and Chemistry reports that Trepol and Neotrepol, bismuth preparations for use in the treatment of syphilis, marketed by the Anglo-French Drug Co., are not acceptable for New and Nonofficial Remedies. Trepol, offered in the form of ampules claimed to contain basic tartrobismuthate of potassium and sodium, was rejected because the product does not represent a "tartrobismuthatic of potassium and sodium," but is instead substantially a basic bismuth tartrate, and because no adequate tests for the control of its identity and uniformity are furnished. Neotrepol, supplied in the form of ampules containing metallic bismuth in suspension, was rejected because the amount of active ingredient claimed to be contained in the ampules is not in accord with the amount declared to be present. —*Jour. A. M. A.*, Jan. 9, 1925.

Loeser's Intravenous Solution of Calcium Chloride and Loeser's Intravenous Solution of Sodium Thiosulphate.—An explanation: Some time ago the Council reported that Loeser's Intravenous Solution of Calcium Chloride and Loeser's Intravenous Solution of Sodium Thiosulphate had been found ineligible for New and Nonofficial Remedies. The New York Intravenous Laboratory objected to these reports. It particularly resented that part of the heading of these reports which declared the products "Not Accepted" for New and Nonofficial Remedies, because it did not request consideration of these products. Since the firm expressed the belief that readers of the reports may be led to assume that it had requested the Council to consider these preparations, the Council explains that the firm did not take this step.—*Jour. A. M. A.*, Jan. 16, 1926.

Some More Medical Frauds.—The postal authorities have recently barred a piece of asthma cure quackery and two lost manhood fakes from the use of the mails. The first is the Asthma-Tab Laboratories, Inc., of Kansas City, Mo., which exploited a product to the public, shown by the A. M. A. Chemical Laboratory to be essentially potassium iodide and arsenic trioxide. The two lost manhood concerns were Hart & Co., which put out a device called the Perfection Developer, and B. & V. S. Manufacturing Co., which exploited the "Burt Vacuum Tube."—*Jour. A. M. A.*, Jan. 16, 1926.

Manola - Hymosa - Phytoline - Succus Cineraria.—"Medical Suggestions" is a pamphlet issued by the Walker Pharmacal Co. and The Manola Co., which apparently are subsidiaries to the Luyties Pharmacal Co., St. Louis. The publication contains articles which are puffs for the products sold by these companies, together with testimonials from physicians who say that they have used them. Manola has been exploited as a "tonic, reconstructive, and tissue builder." It now contains some strychnine and arsenic which takes it out of the class of homeopathic nostrums, but certainly does not justify the promiscuous use which is advocated. Hymosa was found to be essentially a solution of salicylates exploited as a remedy for rheumatism. Phytoline is a preparation of pokeberry juice advertised as a powerful antifat. Succus Cinceraria Maritima (Walker) is recommended for use in cataract by the Walker Chemical Co., which in 1916 pleaded guilty to the charge that the claims for this nostrum were false and fraudulent.—*Jour. A. M. A.*, Jan. 16, 1926.

Vitalait Starter Omitted from N. N. R.—The Council on Pharmacy and Chemistry announces that Vitalait Starter of the Vitalait Laboratory, Newton Centre, Mass., has been omitted from New and Nonofficial Remedies because the preparation was used as a means of advertising an unacceptable preparation.—*Jour. A. M. A.*, Jan. 23, 1926.

Streptococcus Vaccine and Mixed Staphylococcus-Acne Vaccine Omitted from N. N. R.—The Council on Pharmacy and Chemistry announces that all streptococcus vaccines and all vaccine mixtures containing staphylococci and acne bacilli have been omitted from New and Nonofficial Remedies because experience with these preparations has not established the value which it was hoped they possessed and because recognized experts to whom the Council looks for help have concluded that these preparations have no field of usefulness.—*Jour. A. M. A.*, Jan. 23, 1926.

Restriction of the Sale of Barbital (Veronal).—While no laws have been passed in the U. S. against the sale of barbital, the New York sanitary code prohibits its sale without a prescription. In Useful Drugs it is stated that many cases of poisoning, some fatal, occur from the indiscriminate use of barbital by the laity.—*Jour A. M. A.*, Jan. 23, 1926.

Burnsides Purifico.—Purifico comes in the form of three liquids: "Purifico No. 1," in addition to 10 per cent alcohol with sugar and a small amount of glycerin, contains potassium iodide, cinchona alkaloids, piporine and probably senna. "Purifico No. 2" is essentially the same thing, minus the senna. "Purifico No. 3" contains 14 per cent alcohol, sugars, valerian, piporine and tannic acid. In 1917 the government prosecuted the promoters of "purifico" on the charge that the claims that this stuff would cure cancer was fraudulent. They pleaded guilty and were fined. In 1924 the promoters were debarred from the use of the mails. Purifico now appears to be handled by the Chautauqua Chemical Corporation of Ashville, New York, and all direct reference to cancer has been omitted from the advertising. This concern states that it does not claim Purifico a specific and does not guarantee a cure. It is obvious, however, that the claims made for many years that Purifico is a cure for cancer are still being traded on.—*Jour. A. M. A.*, Jan. 30, 1926.

Ethylene and Nitrous Oxide as Anesthetics.—Ethylene produces greater relaxation than nitrous oxide, also much higher percentages of oxygen can be administered with it; and, therefore, cyanosis is not produced as with nitrous oxide. According to New and Nonofficial Remedies the advantages over nitrous oxide are equally rapid but more pleasant

induction, satisfactory relaxation without cyanosis or sweating, and rapid recovery. The disadvantages of ethylene are the odor, the inflammability of the gas, and an apparently increasing oozing of the wound during its use.—*Jour. A. M. A.*, Jan. 30, 1926.

NEWS

Medical Advice by Radio on Increase.—The United Fruit Company announces that the free medical radio service which it inaugurated several years ago from its hospitals in the various countries of Central America and from the passenger ships in its service is now made available for ships at sea through an additional number of stations. It now has fifteen stations through which this service can be obtained.

Ships at sea, where no doctor is carried on the ship's list, can get their advice by calling any one of these stations.—*Dallas News.*

Free Clinic Established at Cleburne.—The General Council of Parent-Teachers' Association of Cleburne has announced that through the aid of the Lion's Club the coöperation of most of the physicians and dentists of Cleburne has been secured in the establishment of a free clinic for the school children of the city.

Realizing the impossibility of children developing normally unless free from physical ailments and handicaps, the physicians and dentists have agreed to make a thorough physical examination of any child bringing a card from its teacher or principal, requesting such an examination.

Emory University to Raise $4,500,000 for Medical Education.—Medical education is to receive a total of $4,500,000 from the $10,000,000 Expansion Fund now being raised by Emory University, Atlanta, Georgia. This money will be distributed as follows: Endowment for the School of Medicine, $2,000,000; endowment for the Wesley Memorial Hospital, $2,000,000; Pathology Laboratory and Hospital Administration Building, $225,000; Nurses' Home $200,000; completion of chemistry building, $75,000. The goal of the campaign as a whole is to provide $6,500,000 in endowment and $3,500,000 in new buildings to cover the estimated needs of all six schools of the university for the next ten years.

The Emory School of Medicine, formerly the Atlanta Medical College, has long been one of the three largest and strongest A-grade medical colleges in the South. It has a total of 3,400 alumni now practicing in all states of the union but two. Dr. Russell H. Oppenheimer is dean of the faculty of 130 men, among the part-time members of which are some of Atlanta's most eminent physicians and surgeons.

For many years the school has been handicapped both in research and teaching work because of inadequate endowment. The enrollment in each class has been limited to sixty men at a time when more physicians of Georgia alone are dying each year than the two medical colleges of the state are graduating. The school is looking to its alumni and to the other friends of medical education to give the funds so urgently needed for expansion.

SOCIETY NEWS

Bee County Medical Society met at the Hotel Kohler, at Beeville, the evening of Janury 12, where a three-course turkey dinner was served the members of the society, Drs. L. L. Griffin, H. E. Lancaster and Scott E. McNeil acting as hosts. The following members and visitors were in attendance: Drs. I. L. McGlasson and W. B. Russ of San Antonio; C. P. Yeager of Kingsville; F. U. Painter of Corpus Christi; F. B. Wheeler of Skidmore; C. M. Poff of Tuleta, and H. Neeley, A. J. Turner, Parr, Griffin, Scott E. McNeil and H. E. Lancaster of Beeville.

Dr. I. L. McGlasson of San Antonio made the address of the evening, his subject being "The Romance of Medicine." He traced the progress of medicine from the most ancient records in the Hebrew Bible and the stone tablets and papyrus of the Egyptians, down through medieval medicine to the present era of scientific medicine. He mentioned how smallpox used to take a toll of about 1,000,000 lives in Europe alone, annually, whereas today an epidemic of smallpox was a reproach to any civilized country. If everybody would be vaccinated, smallpox would be wiped off the face of the globe. Three million five hundred thousand consecutive vaccinations had been done in the Philippines without a single death or serious infection. A short time ago a case of yellow fever occurred in the heart of the business section of Houston and hardly anyone became alarmed over it, and there was no epidemic. Only a few years ago, the occurrence of this case would have meant a severe epidemic, a loss of many lives and the paralysis of business, not only in Houston, but throughout the entire State, and even throughout the whole South. The martyrs to the cause of medicine have been numerous, and yet the general public knows little about them.

Short addresses were also made by several of the other visiting doctors.

Bexar County Medical Society met January 7, with 50 members and 3 visitors in attendance.

Dr. M. J. Bliem read a paper on "The Evolution of a Sectarian." This paper was discussed by Drs. Thomas Dorbandt, R. H. Crockett, W. B. Russ and Homer T. Wilson.

Dr. Bliem, in closing, emphasized the importance of a proper preliminary education. One of the dangers of the minor schools of medicine is that their preliminary requirements are often very meager. He believed that the different cults would dwindle and entirely disappear if every student were required to have a thorough preliminary education. He also believed the Texas Medical Practice Act to be the best of all state medical laws.

Dr. S. P. Cunningham spoke on the Publicity Campaign and told what had been accomplished up to date. He thought that the public could certainly be reached through the press.

The directorate of the Bexar County Medical Society, consisting of Drs. W. S. Hamilton, B. F. Stout, Thos. Dorbandt, Theo. Y. Hull and E. V. Depew, was re-elected for 1926. Standing committees for the year were appointed by the incoming president.

Bexar County Medical Society met January 14, with about 50 members in attendance.

Dr. Dudley Jackson reported a case of carcinoma of the rectum recently operated by the Coffey technic. He thought that the Kraske operation did not go high enough to remove the deeper lymphatics that surround the hemorrhoidal arteries, and that the mortality of this operation was always extremely high. In the case reported, an old rectal fistula had undergone malignant changes. At the time of the operation there was a metastatic growth in both groins, and a large mass in the abdomen that was naturally supposed to be malignant. The first operation consisted of thorough cauterization of the rectal cancer and complete block dissection of both groins. When the abdominal operation was performed, the glands above the superior hemorrhoidal arteries were removed and the large mass which was supposed to be a malignant uterus was found to be a fibroid and a supravaginal hysterectomy was done. The third operation was extra-peritoneal and was performed ten days after the abdominal operation, at which time the coccyx was removed and a permanent fecal fistula was established in the left side. The levator

ani and other muscles around the rectum were removed. A radium pack was used after the operation. followed by deep x-ray therapy. The patient was shown to the society.

Another case reported by Dr. Jackson was that of a blacksmith operated for rectal cancer two years previously. For the past year this patient had been regularly engaged in his work and had regained his normal weight. Dr. Jackson stated that in rectal cancer the tunica propria was not usually broken through until after the first year, the tumor being of slow growth with late metastasis.

Dr. P. I. Nixon reported a similar case in which a similar operation was performed, but the patient had refused a second operation and was now in a serious condition as a consequence.

Dr. Mary C. Harper read the case report of Jimmie English, the so-called "Grass Girl," who had been made famous by the *San Antonio Light*. She stated that lung abscess was a rare condition in a child and was usually caused by primary pneumonia, while in this case the pneumonia was of the aspiration type. Among 4,500 routine autopsies at Mt. Sinai Hospital in New York City, only five cases of lung abscess were found.

Dr. Dudley Jackson stated that he felt partly responsible for Jimmie's being taken to St. Louis, and wished to explain to the society that everything had been done in the case that anyone in San Antonio felt capable of doing, and when he was asked by Dr. Harper to do something for the child he felt it an injustice to the child not to take her to Dr. Graham at St. Louis. He thought Dr. Graham's technic in chronic bronchiectasis was splendid and had considerably reduced the mortality in such cases. Jimmie still has a bronchial fistula, which Dr. Graham hopes to close in a few months. She has gained 22 pounds and is greatly improved.

Dr. A. F. Clark stated that he had done a bronchoscopic drainage once while in San Antonio, and believed that if this procedure had been done many times the operation might have been unnecessary.

Dr. Jackson stated that bronchoscopic drainage had been done twice at St. Louis, besides postural drainage, and that the operation was only performed after all nonoperative methods had failed.

Dr. W. S. Hanson reported the case of a Mexican, aged 35 years, who was admitted to Robert Green Hospital, January 12, 1925, complaining of a severe diarrhea. He gave the history of having passed a double handfull of worms two years previously and of diarrhea since that time. The patient was quite depressed, had no appetite and showed a definite pigmentation of the elbows, hands and neck. The diagnosis of pellagra was made and the patient was placed on a milk and egg diet, with plenty of sunshine and fresh air. He grew better, but contracted a cold on the night of January 9, 1926, which was followed by lobar pneumonia of the left upper lobe. Due to the pellagrous infection and the low vitality of the patient, the case was considered a hopeless one. On January 12, the patient's temperature was 105° F., and 20 c.c. of 1 per cent mercurochrome solution was given intravenously, which was followed by a chill. The next morning his temperature was down to 102° F., and 20 c.c. of the mercurochrome solution was again given. The next day the temperature was 100° F., and the patient's condition much improved until on the afternoon of the 15th his temperature was 98° F., the pulse 82, and the respiration 20. The patient received 1/100 grain of digitalis every eight hours, and a mustard jacket was applied fifteen minutes every four hours along with the mercurochrome.

Dr. Hanson stated that he did not advocate the use of mercurochrome in such cases until after the usual supportive measures had been thoroughly tried. He thought the drug had certainly brought about a miraculous cure in the case reported.

Dr. I. S. Kahn stated that chest specialists are now employing mercurochrome in smaller dosages than those used by the general practitioners; 4 or 5 c.c. of a 1 per cent solution is given every four or five days. These small doses do not produce chills or reactions of any kind.

Resolutions of sympathy upon the death of Dr. Frank Paschal were adopted by the society. Resolutions of sympathy were also adopted upon the death of Dr. John B. Herff's mother, Mrs. Edna Kampmann Meyers.

Collin County Medical Society met January 12, at the McKinney City Hospital.

Dr. A. M. McElhanon of Sherman, read a paper on "Tumors of the Umbilicus," Dr. J. B. Wright of Westminster opening the discussion.

Dr. R. B. Giles of Dallas, read a paper on "Liver and Gall-Bladder Diseases," the discussion of which was opened by Dr. W. R. Mathers of McKinney.

Dr. Howard L. Cecil of Dallas, read a paper on "The Significance of Blood and Pus in the Urine," the discussion of which was opened by Dr. Will C. Wright of Farmersville.

Coryell County Medical Society met December 30, and the following officers were elected for the ensuing year: President, Dr. E. B. Baker, Gatesville; secretary-treasurer, Dr. T. M. Hall (re-elected), Gatesville; censors, Drs. R. L. Raby of Gatesville, D. C. Homan of Oglesby and F. B. King of Pearl; delegate, Dr. D. M. Jordan of Oglesby.

Erath County Medical Society met at Stephenville, December 16, and the following officers were elected for the ensuing year: President, Dr. J. R. Sessums, Dublin; secretary, Dr. T. F. Bryan, Dublin; delegate, Dr. O. O. Gain, Dublin; alternate, Dr. S. D. Naylor, Stephenville.

El Paso County Medical Society met January 4, 1926. The meeting was called to order by the retiring president, Dr. John A. Hardy, who turned over the administration to the new president, Dr. T. J. McCamant. After a brief address in which he asked for the coöperation of every member, Dr. McCamant appointed the following committees to serve during the year: Program: Dr. George Turner, Major Scott, Drs. W. E. Vandevere, C. H. Mason, and E. J. Cummins; Entertainment: Drs. W. R. Jamieson, E. H. Irvin, H. H. Varner, E. B. Thompson, and J. A. Hardy; Membership: Drs. W. W. Waite, F. O. Barrett, O. Egbert, W. E. Johnson, and W. Sharp; and, Publicity: Drs. F. P. Miller, W. L. Brown, J. W. Tappan, R. L. Ramey, and J. W. Brown.

In addition, a committee consisting of Drs. W. H. Anderson, chairman; John Hardy, Paul Gallagher, R. L. Ramey, and E. H. Irvin, was appointed to scout for suitable new quarters at less expense to the society. On account of meetings being held every week, instead of twice a month, some provision is necessary in order to reduce this item of expense.

El Paso County Medical Society met January 11, 1926.

Dr. W. R. Jamieson reported a case of premature grey hair in a young woman: The change took place in fifteen days, and the cause was revealed to be several abscessed teeth.

Dr. R. A. Wilson reported a case of tetanus in a middle aged Mexican woman, in which the infection apparently originated from a splinter in the thumb. The woman had been sick several days and died at the County Hospital with typical symptoms of tetanus.

Dr. L. M. Smith then read a paper on the dermatological aspects of syphilis, stressing the importance of the differential diagnosis and of the Wassermann fixation test in all doubtful cases. In discussing

this paper, Dr. Jamieson told of treating a society woman for psoriasis in his early days, which later turned out to be a specific rash. The importance of Wassermann reaction was emphasized by Drs. Turner, Strong and Werley.

Miss Diller of the Masonic Hospital presented a description of the dietetic regime at Battle Creek Sanatorium, outlining the extreme and strictly vegetarian principles of Dr. Kellog. Her paper was discussed by Drs. Leigh and Jamieson.

Some of the interesting new procedures reported at a recent meeting of the American Radiological Society were presented by Dr. George Turner, who particularly explained the use of lipoidol, which is a fixed compound of iodine and poppy-seed oil, containing 40 per cent by weight of iodine, developed by Dr. Jaques Forestier of Aix-les-Bains, France. It is a valuable adjunct to the *x*-ray diagnostic technic in the spotting of cord tumors and obscure lung conditions such as bronchiectasis, cavities, etc. Being a nonirritating oil compound, it can readily be injected or inspired into the lungs to outline lung pathology, and without injury. Dr. Turner then showed slides of several lung cases in which he has used the lipoidol, including a case of multiple bronchiectasis and one of bronchial fistula.

The society extended resolutions of sympathy to Dr. and Mrs. Irvin on the death of Mrs. Irvin's mother, and to Dr. and Mrs. Pickett on the death of Mrs. Pickett's father.

El Paso County Medical Society met January 18, 1926, with twenty-eight members and two visitors present.

Dr. J. W. Laws presented a patient who had undergone a successful thoracoplasty operation, performed by Dr. Price of Saranac Lake, N. Y. The history showed pleurisy with effusion and involvement of the left side of the chest. After sixteen months of rest cure, the patient was operated upon under nitrous oxide anesthesia and a very satisfactory result obtained. This case admirably illustrated the benefit possible in properly selected cases for thoracoplasty.

Dr. James Vance reported an unusual case of abscess of the abdominal wall following a pus tube infection. The tubal abscess had ruptured extraperitoneally and then dissected over the peritoneum, making a large pus pocket which finally broke through the abdominal wall.

Dr. P. E. McChesney cited the case of a woman who was left in bed with a gas heater burning in the room; about ten hours later, she was found there unconscious and in collapse with shallow respirations, thready pulse and deep coma. With stimulants and oxygen she was revived and regained consciousness in about six hours. The clinical diagnosis was carbon-monoxide poisoning.

Dr. Harry Leigh reported two cases of middle-ear infection in children; one developed sinus thrombosis of the left lateral sinus with convulsions, and died; the other, with a similar acute otitis media, made a good recovery.

Major Hague of William Beaumont Hospital read a paper on the electro-cardiograph, which he illustrated by diagrams of the different leads and then outlined the clinical significance of the different findings. In the discussion, Dr. Werley emphasized the value of the electro-cardiograph in prognosis and discussed its relation to clinical work. Major Scott stated that the electro-cardiograph enlarged our knowledge and stimulated a new interest in all heart cases. Dr. Egbert quoted Sir Thomas Lewis as saying that the cardiograph enhanced and improved all clinical cardiac diagnosis. Major Hague, in closing, called attention to the fact that while accurate and precise, the cardiograph was not infallible, especially in prognosis.

Dr. John W. Brown read a paper on "Rocky Mountain Spotted Fever," which is a disease primarily of rodents and animals and only secondarily or accidentally, of man. It is transmitted by a tick and clinically resembles very closely typhus fever and Japanese river fever. It is most prevalent in the Bitter Root Valley of Montana; it is also found in Idaho, Oregon, Colorado, and California. There is no record of any case ever having feen found in the Southwest. The paper was discussed by Drs. Miller and Waite.

The Publicity Committee was appointed to invite Dr. Rosser, President of the State Association, and Ex-Lieutenant Governor Lynch Davidson to give public talks at a dinner on health education.

Mr. Jeff Reese, advertising manager for the TEXAS STATE JOURNAL OF MEDICINE, gave a short talk on what had been accomplished by way of education and law enforcement in medical matters in other cities of Texas.

Ellis County Medical Society met at Ennis, January 12, with the following physicians in attendance: Drs. J. E. Jones, R. H. Looney, S. H. Watson, G. M. Goddard, W. F. West, W. C. Tenery and E. F. Gough, all of Waxahachie; A. T. Hampton of Ferris; J. F. Forehand and W. A. Grant of Bardwell; A. C. Calvert and P. L. Hall of Italy; N. J. Pickett of Milford; Wayne T. Robinson of Dallas, and J. Pestal, A. L. Thomas, J. S. Terry, C. P. Cook, T. W. White, W. P. McCall and J. L. Rains of Ennis.

Dr. R. H. Looney of Waxahachie, read a paper on "Dermatology and the *X*-Ray."

Dr. Wayne T. Robinson of Dallas, read a paper on "Induction of Labor."

Preceding the scientific program a very enjoyable luncheon was served at the Jones Cafe.

Falls County Medical Society met January 11, with the following members present: Drs. N. D. Buie, S. P. Rice, Howard Smith, E. P. Hutchings, A. J. Streit, Oscar Torbett, Milton Davidson, S. S. Munger, J. B. Barnett.

Dr. J. B. Barnett of Thornton, read a paper on "Osteomyelitis," the discussion of which was opened by Dr. J. H. Mitchell of Kosse.

Dr. A. J. Streit of Marlin read a paper on "Antrum Diseases."

The Campaign of Publicity and for Enforcement of the Medical Practice Act was discussed at length.

Grayson County Medical Society met at the Chamber of Commerce at Sherman, January 12, with the following members present: Drs. T. W. Crowder, H. F. Brown, G. E. Henschen, C. D. Strother, J. S. Dimmitt, J. H. Holt, C. E. Schenck and O. C. Ohlers, all of Sherman; W. A. Lee, M. M. Morrison, and Walker of Denison, and S. C. Millen of Gunter.

Dr. C. D. Strother of Sherman, read a paper on "Passive and Active Prophylaxis in the Treatment of Scarlet Fever."

A number of interesting cases were reported at the meeting.

Gonzales County Medical Society met January 8, at which time the following officers were elected for the ensuing year: President, Dr. J. J. Flouts; vice-president, Dr. A. B. Parr; secretary-treasurer, Dr. W. T. Dawe (re-elected); censor, Dr. L. J. Stahl, all of Gonzales; delegates, Drs. L. J. Stahl, and N. A. Elder of Nixon.

Johnson County Medical Society met January 11, and the following officers were elected for 1926: President, Dr. J. D. Osborn of Cleburne; vice-president, Dr. C. L. Edgar of Cleburne; secretary-treasurer, Dr. M. Dennis of Cleburne; censor, Dr. B. G. Prestridge of Alvarado; delegate, Dr. C. A. Schultz of Alvarado; alternate, Dr. B. H. Turner of Cleburne.

Harris County Medical Society met December 19, with 93 members present.

Dr. A. H. Flickwir delivered the president's annual address.

The annual report of the board of directors was read and adopted article by article. The annual reports of committees were read.

Election of officers for 1926 was then proceeded with and the following were elected: President, Dr. James Greenwood; vice-president, Dr. F. J. Slataper; secretary, Dr. J. C. Michael; treasurer, Dr. J. E. Alexander; delegates, Drs. C. C. Cody, E. F. Cooke and C. C. Green; board of censors, Drs. F. R. Lumis, W. M. Wier and John Foster; first alternate delegate, Dr. E. L. Goar; second alternate delegate, Dr. A. H. Flickwir; third alternate delegate, Dr. F. J. Slataper.

Harris County Medical Society met January 9, 1926. Dr. P. V. Ledbetter reported a case of coronary thrombosis with recovery. The patient had suffered with attacks of dyspnea and precordial distress for four years. The last attack occurred about thirty days previous to the report and came on suddenly with dyspnea, pain and syncope. His pulse was weak, respiration of the Cheyne-Stokes type, his color ashy and the systolic blood-pressure from 40 to 60 mm. hg. Treatment consisted of venesection, heart stimulants and morphine. Four days after the attack his blood pressure was 150 systolic and he was well on the road to recovery.

Dr. Ledbetter presented another patient who had had rheumatic fever six years previously. The attack had lasted three months. The patient now had dyspnea on exertion and edema of the ankles. The characteristic murmur of mitral stenosis was demonstrated in the case.

Dr. J. K. McHenry presented some radiograms of this patient's cardiac region and explained their significance. These were contrasted with a series of radiograms of syphilitic aortitis.

Dr. Ledbetter explained the life-saving value of venesection in the first case. Coronary thrombosis usually terminates seriously. In the case reported one of the smaller branches of the coronary artery was probably occluded. Swift has shown that numerous Achoff bodies are found in the valve leaflets during an attack of rheumatic fever. The patient's present condition is undoubtedly due to the acute rheumatic attack.

Dr. Ghent Graves, in discussing the two cases reported by Dr. Ledbetter, stated that the case of coronary thrombosis had been treated with rare good judgment. The early signs of the condition are extreme pallor, and systolic blood-pressure of 100 or less, and pain in the chest. Coronary thrombosis occurs in the left coronary artery in ninety per cent of cases. He asked for Dr. Ledbetter's view concerning quinidin, since the patient had auricular fibrillation.

Dr. L. L. Handley, who saw the first case with Dr. Ledbetter, described the attack, stating that he withdrew one pint of blood immediately.

Dr. B. F. Smith questioned the diagnosis of syphilis in the case mentioned by Dr. McHenry. He also requested information concerning the relative value of ouabain and strophanthin.

Dr. Ledbetter, in closing, stated that quinidin is contraindicated in the severe rheumatic heart disease and in auricular fibrillation of more than six months' duration. In electrocardiagraphic studies notching of the QRS wave denotes delay in conduction and inversion of the T wave is a grave sign unless due to digitalization.

Dr. M. D. Levy reported a case of atypical leukemia in a patient 44 years of age, having a red blood count of 1,200,000 and a leukocyte count of from 4,000 to 8,500, with 86 per cent lymphocytes. The spleen and lymph nodes were not enlarged. At one examination 4 per cent neutrophilic myelocytes were found. The erythrocytes were normal in size and shape. The low red blood count and high leukocyte count suggested an agranuloplastic leukemia, which, however, could be ruled out by the finding of neutrophilic myelocytes. Aplastic anemia and aleukemic leukemia were considered. The diagnosis is uncertain at the present time, but it is probable that the case will develop into a frank leukemia.

Dr. J. H. Agnew suggested the possibility of the case being one of a remission of leukemia.

Dr. W. B. Thorning read a paper on "Peptic Ulcer." He was of the opinion that no one treatment for peptic ulcer could be insisted upon for all cases, the keynote of the management of the condition being individualization. One should be acquainted with both the medical and surgical methods of treatment. The medical treatment consists essentially of antacid therapy and nonirritation. The causes of failure are: (1) the fact that physiologic rest is impossible, (2) infection, (3) the corrosive action of the gastric juice, (4) hypersecretion and continuous secretion, and (5) obstruction. Surgical treatment has the following disadvantages. (1) operative mortality, (2) failure to cure all cases. Surgical treatment is probably successful in about 80 or 90 per cent of cases. Good surgical judgment is essential for the best results. The percentage of cures is about equal in medical and surgical treatment of peptic ulcer. Surgery is the only rational treatment for certain types of peptic ulcer. Medical treatment is more time-consuming than surgical. The coöperation between the surgeon and the internist in the treatment of this disorder is essential for the best results.

Dr. M. D. Levy, in discussing the paper, stated that he agreed in the main with the essayist. With the exception of emergency cases, he believed every case of peptic ulcer should be treated medically, at first. If the cases did not improve in from eight to ten days, surgical intervention was indicated.

The case was further discussed by Drs. C. U. Patterson, B. F. Smith, H. B. Johnson, and Axelrod.

Dr. Thorning, in closing, agreed with the remarks concerning the post-operative care, but took issue with the statement made during the discussion that the good results from gastro-enterostomy were largely due to rest in bed necessitated by the operation.

Harris County Medical Society met January 16, in a called meeting to consider the matter of dissolution of the Harris County Medical Society, Incorporated, with 216 members present, which complied with the law requiring a 4/5 majority of members present for dissolution of an incorporated body, the total membership of the society being 242. The motion for dissolution was carried by a vote of 207 to 9.

Dr. Louis Daily reported a case of mucocele of the frontal sinus. The patient presented a firm protuberance over the left frontal sinus with an outward displacement of the left eyeball, and limitation of its movements, as a result of an injury to the forehead a year previously. Under local anesthesia the sinus was enlarged and the tenacious mucus was drained externally, but later intranasal drainage became necessary. At present only a slight scar remains and the vision and movements of the left eye are practically normal.

Dr. Wm. Lapat, in discussing the above case, stated that mucoceles are of various etiology. Sometimes the frontonasal duct ends in a blind opening. The unusual feature of the case reported is the depth of the frontal sinus as shown by the radiogram.

Dr. R. K. Daily stated that she could substantiate the finding of limitation of movement of the eyeball in this case.

Dr. Herman Johnson read a paper on "Cerebral Hemorrhage in the New-Born from the Standpoint of the Obstetrician." He divided the cause of cerebral

hemorrhage in the new-born into (1) Immediate and (2) Predisposing. The immediate cause is abnormal birth mechanism, while the predisposing causes include syphilis, hemophilia, asphyxia, toxemia, etc. He wished only to discuss the immediate cause, which is fundamental for the obstetrician. The most frequent source of hemorrhage is from a lacerated tentorium, which is due to tension from elongation of the skull. The obstetrician should endeavor to prevent intracranial hemorrhage by examination for possible obstruction before labor and correct obstetric manipulation during labor. The time necessary for placental separation can be advantageously employed by examination of the child, to detect the possibility of intracranial hemorrhage.

Dr. David Greer, in discussing Dr. Johnson's paper, stated that an early diagnosis was essential and that spinal drainage and whole blood injections may be life saving. Dr. J. B. Johnson believed that the contributing causes were most important, but did not minimize the necessity of good obstetric procedure. He had recently observed a case of cerebral hemorrhage in a baby delivered by cesarian section because the mother was suffering from toxemia of pregnancy.

Dr. James Greenwood remarked that the neurologist only saw the cases later in life when they had developed mental symptoms. He considered the paper valuable in that it called attention to the prevention of such disastrous sequelae.

Dr. C. M. Aves stated that intracranial hemorrhage in the new-born differed only in minutia from that occurring later in life. He considered surgical treatment was indicated.

Dr. H. B. Johnson, in closing, stated that the principal object in presenting the paper was to call attention to the fact that sublethal hemorrhage may cause trouble in later life, and that a prime consideration in correct obstetrics should be the safety of the child.

Dr. C. C. Green read a paper on "Misdirected Conservatism in Lesions of the Cervix Uteri." He called attention to the importance of a proper examination. All lesions of the cervix uteri must be treated surgically when a cure is to be expected. Procrastination in premalignant cases is inexcusable. In such cases radium treatment is the method of choice. In early malignancy radium should be used two weeks before operation (panhysterectomy), and deep *x*-ray following operation. The paper was a plea for definite decision and prompt action in treating lesions of the cervix uteri.

Dr. John T. Moore, in discussing Dr. Green's paper, stated that lacerations of the cervix were of importance not only because they were a potential menace to life, but because they were often the cause of neuroses. Statistics show that as many cures are effected by *x*-ray and radium in treating malignant disease as by surgery.

Dr. J. H. Graves considered the immediate repair of cervical tears to be real conservatism.

Dr. F. L. Barnes thought that early cervical cancer should be treated by hysterectomy, and that radium should be used as adjunct in every case where its effects can be restricted to the object desired.

Dr. J. B. Johnson believed that every woman should be seen by the obstetrician from six weeks to two months after delivery. Any erosions then discovered can be cured by cauterization. In this way the obstetrician and general practitioner can practice real conservatism.

Dr. J. E. Clark discussed the relative value of radium and of surgery in the treatment of malignancy of the cervix. Radium is life-conserving in many cases, whereas the surgical mortality in such necessarily formidable operations is considerable.

Dr. J. E. Hodges stated that the prognosis in cervical cancer is dependent on the type of cellular elements. Prevention is the keynote of conservative treatment.

Dr. H. W. Johnson believed that precancerous cervical lesions should be treated radically. He employed a saturated solution of zinc chloride in treating lacerations, which, if unhealed, often give rise to definite neurotic symptoms.

Dr. Green, in closing, stated that he had only emphasized the high spots in the management of these lesions. He had been satisfied with a modified cervical amputation and had definitely abandoned trachelorraphy. *X*-ray and radium are valuable surgical adjuncts, but do not give results comparable to good surgery. The main purpose of his paper was to call attention to the futility of palliative treatment in these conditions.

Harris County Medical Society met January 23, with 63 members present.

Dr. J. H. Park, Jr., reported three cases of diphtheria. The first case was one of laryngeal diphtheria in which a pure culture of B. diphtheriae was found. Rapid recovery followed the administration of 20,000 units of antitoxin. In the second case there there was a membrane on the pharynx and tonsils. The first culture showed only streptococci, but the second showed the diphtheria organisms in addition. Rapid recovery followed the administration of 20,000 units of antitoxin. The moral in this case was not to rely on negative cultures in suspected diphtheria cases. In the third case the patient apparently had a simple upper respiratory infection and repeated cultures were negative for diphtheria. After the patient did not respond to the ordinary measures, antitoxin was administered with immediate favorable effects.

Dr. F. B. King criticised the large doses of antitoxin. He had always obtained satisfactory results with doses much smaller than 20,000 units.

Dr. F. H. Lancaster agreed with the previous speaker, stating that it had been shown that 5,000 units of antitoxin would neutralize all the toxin that the body can sustain.

Dr. Louis Hodde stated that in the Willard Parker Hospital 9,000 units were given intravenously when this route was feasible, but otherwise 20,000 units were given.

Dr. T. O. Wooley read a paper on "Antitoxin and Toxin-Antitoxin." He stated that 48 hours are required for the complete absorption of intramuscularly administered antitoxin. In urgent cases, therefore, the intravenous route should be chosen. The mortality of diphtheria is five times greater without antitoxin than with it. The use of the Schick test and of the toxin-antitoxin mixture will appreciably reduce the morbidity of diphtheria. In a recent examination of school children he had been astonished at the number of carriers found. Toxin-antitoxin is probably as efficacious against diphtheria as vaccination is against smallpox, and it is harmless.

Dr. H. K. Read stated that in New York City over 300,000 school children had been given toxin-antitoxin without any ill effects, and that there had been a decrease of fifty per cent in the number of cases of diphtheria. While there were some early ill effects from toxin-antitoxin, these deleterious constituents have been eliminated.

Dr. E. L. Goar mentioned a recent report of several cases of allergic shock from the use of immune sera.

Dr. J. E. Hodges stated that some untoward local effects had been noted from the toxin-antitoxin mixture, and that severe general effects had occurred in one instance reported from Boston. Much smaller doses of toxin are now being used.

Dr. Wooley in closing stated that the immunization produced by the toxin-antitoxin mixture lasts

for at least six years and probably longer, sufficient time not having elapsed to state definitely just how long a protection was thus conferred. He stated that the untoward effects and allergic shock mentioned in the discussion, had now been overcome.

Dr. Henry Hartman, professor of pathology, University of Texas, Medical Department, Galveston, read a paper on "Some Vascular Conditions of the Brain." The first case reported was one of varicose dilatation of the sylvian vein, an exceedingly rare condition. There was a history of several previous attacks of sudden unconsciousness probably associated with undue mental stress. In one of these attacks the patient died, having developed a left hemiplegia. At necropsy a great dilatation of the left sylvian vein was found, with hemorrhage into the subarachnoid space of the left hemisphere. The inferior anastomotic vein pursued an anomalous course. There had been a rupture of the left sylvian vein at the site of the greatest dilatation. Dystrophy of the elastic and muscular coats was found. The case was probably one of congential varix.

The second case was one of hemangioma of the left lateral ventricle, in a negro man, 20 years of age, who had been in good health previously, but who suddenly became unconscious. Spinal puncture showed bloody fluid. The clinical diagnosis was intracranial hemorrhage. At necropsy, the brain showed clotted blood in the left lateral ventricle and adjacent parts. An angioma protruded into the left lateral ventricle and ruptured vessels in it were noted. The anatomical diagnosis was intraventricular hemorrhage following rupture of a hemiangioma.

Dr. Hartman's paper was discussed by Drs. Gibbs Milliken, Frank Barnes and B. F. Smith.

Hunt County Medical Society met December 11 at the Commerce City Hospital with the following doctors present: Drs. Sam Whitten, Ernest Good, E. F. Wright, W. M. Dickens, and Strickland of Greenville; R. B. Giles and Ben F. Schoolfield of Dallas; W. H. Forrester of Klondike; L. Puckett of Wolfe City; E. B. Westerman of Charleston; S. F. Blair of Cooper; John Hart, Clarence Allen, J. G. Allen, W. E. McGlasson, C. F. Neuville, H. M. Bradford, W. R. Cate, W. B. DeJernett and G. W. Holderness of Commerce.

Dr. R. B. Giles of Dallas, read a paper on "Heart Disease."

Dr. Ben F. Schoolfield of Dallas, read a paper on "The Treatment of Ankylosed Joints." This paper was illustrated with lantern slides. Both papers were freely discussed.

The ladies of the hospital staff served refreshments to the society after the business of the society was transacted.

Hidalgo County Medical Society met at Donna on December 10. with the following members in attendance: Drs. J. D. Stephens, J. G. and W. E. Whigham, F. E. Glauner, J. W. Conard, Jas. A. Miller, J. R. Mahone, J. G. Webb and L. M. Davis. Visitors present were: Drs. Jones, Williamson and Roddick.

A very enjoyable supper was served at the Plaza Hotel and the society was entertained by a program of music and readings, following which the scientific program was taken up.

Dr. Jas. A. Miller read a paper on Mastoiditis, which was discussed by Dr. F. E. Glauner.

The following officers were elected for the ensuing year: President, Dr. J. G. Webb, Mercedes; vice-president, Dr. J. W. Conard, Pharr; secretary-treasurer, Dr. J. R. Mahone, Pharr (re-elected); censors, Drs. F. E. Osborn, McAllen; E. L. McCalip, Weslaco; W. E. Whigham, Donna.

Jefferson County Medical Society was the host to 400 distinguished guests from Houston, Port Arthur, Jasper, Beaumont, Orange and adjoining cities at a banquet given at the Hotel Beaumont at Beaumont, December 18, 1925.

Dr. D. S. Wier was the toastmaster, being introduced by Dr. A. R. Autrey, president of the Jefferson County Medical Society. The principal speakers of the evening were the Hon. Lynch Davidson, former lieutenant-governor of Texas; Dr. C. M. Rosser, president of the State Medical Association of Texas; H. J. Lutcher Stark of Orange, former regent of the State University, and Dr. M. L. Graves of Houston. The purpose of the meeting was to impress the good citizens of the community with the importance of the enforcement of the Medical Practice Act, the purpose of which is to insure as far as is humanly possible that those who attempt the serious business of treating the sick shall be qualified practitioners of medicine.

Medina-Uvalde-Maverick-Val Verde-Edwards-Real Counties Medical Society met December 8 at Sabinal, and the following officers were elected for 1926: President, Dr. W. H. Smith, Hondo; vice-president, Dr. S. B. Hudson of Sabinal; secretary-treasurer, Dr. A. J. Springfield of Leakey; delegate, Dr. D. A. York of Del Rio; alternate, Dr. W. B. Ross of Del Rio.

Lamar County Medical Society met at the Gilbert Hotel at Paris, January 7, 1926, with 18 members.

The president, Dr. T. W. Buford of Minter, discussed the advantage of every doctor having the fact that he was licensed to practice medicine in Texas printed on his checks, letterheads and prescription blanks.

Dr. D. S. Hammond read a paper on "The Aid of the *X*-Ray in Diagnosis."

Dr. L. B. Stephens read a paper on "Conservatism in the Treatment of Tonsillitis."

McLennan County Medical Society met January 11 at the Raleigh Hotel.

Dr. K. H. Aynesworth read a paper on "Harelip and Cleft Palate."

Dr. M. B. Saunders read a paper on "Observations on the Treatment of Constrictions of the Neck of the Bladder," which was discussed by Drs. J. W. Hale and H. R. Dudgeon.

Dr. T. L. McDonald read a paper on "The Paranasal Sinuses."

Navarro County Medical Society held their annual banquet at the Navarro Hotel, December 21, 1925.

Forty-two members were present and Dr. L. E. Kelton was toastmaster. Toasts were called for by Drs. I. N. Suttle, Trim Houston, S. H. Burnett, R. C. Curtis, J. Wilson David and Wm. K. Logsdon.

Drs. W. D. Cross, M. L. Hanks, J. R. Dickson, Harry Ezelle, Dan B. Hammill, B. F. Houston and W. T. Shell were called on for short talks and also the three druggists present, Messrs P. A. Brown, F. E. McPherson and Murphy Williams.

The reporter for the *Corsicana Sun*, evidently believing that he was writing up an account of a meeting of the Ladies' Shakespeare Club, opines, "to one side under the overhanging evergreen foliage and near one of the heavy columns sat the big glass punch bowl where the members of the entertainment committee with a few more assistants (druggists?) poured *tea*."

Smith County Medical Society met in the Blackstone Hotel at Tyler, with seven members and three visitors present. The visitors were: Drs. R. T. Boucher of Tyler, T. W. Thompson of Sand Flat, and Kuykendall of Bullard.

Dr. E. H. Vaughn of Tyler, read a paper on "The Proper Fitting of Glasses." This paper laid stress on the proper dilatation of the pupils before the vision can be properly corrected. This paper was discussed by Dr. R. L. Page.

Dr. A. Woldert gave an interesting account of his visit to the Mayo Clinic and the Battle Creek Sanitarium.

Dr. G. G. Bell read a paper on "Ceasarian Section," giving the indications and contra-indications for the same. He had performed 32 ceasarian sections with only one maternal death. He described the technic of the operation and the pre- and postoperative treatment. The paper was freely discussed.

Stephens County Medical Society met at Breckenridge, January 22.

After a luncheon at the Chamber of Commerce, the incoming officers were installed.

Scientific papers were read by Drs. W. S. Parks, D. M. Boles, R. W. Gray and D. J. R. Youngblood.

Tarrant County Medical Society met January 5, with about 40 members in attendance.

Dr. W. O. Ott read a paper on "The Management of Skull Injuries." He emphasized the thorough cleansing of wounds and the removal of devitalized tissue. The paper was discussed by Drs. Jack Daly, Frank Sanders and C. H. McCollum.

Dr. Wilmer Allison read a paper on "Dementia Praecox," which was discussed by quite a number of the members.

Dr. I. P. Barrett was elected to membership.

Dr. C. F. Clayton reported fair progress on the Medical Arts Building.

The House Committee reported that the society hall had been subleased to the Texas National Guard for $60.00 per month, the gas, lights and water being paid for by the maintenance fund, the society having the privilege of using the hall on regular meeting nights and special occasions.

Tom Green County Medical Society met at San Angelo, January 4, with the following members present: Drs. W. F. Chambers, J. B. Chaffin, A. C. DeLong, J. H. Herndon, J. S. Hixon, D. L. Hess, C. T. Keyes, G. L. Lewis, J. P. McAnulty, J. B. McKnight, C. T. Womack. H. Oschman of the San Angelo Pathological Laboratory was present as a visitor.

The new president, Dr. J. B. McKnight, delivered an address on the opportunity at San Angelo for the rendition of good medical service. He stated that the modern physician must be well prepared and that the public was demanding specialists in every line and good hospital facilities, and would go elsewhere if they could not get these at home.

Dr. G. L. Lewis reported a case of tonsillar hemorrhage following a suppurative cellulitis caused by the application of a clamp; a case of hemorrhagic retinitis following uterine hemorrhage, and a case of acute glaucoma, apparently caused by tonsillectomy.

Travis County Medical Society met January 14, at which time a paper was read by Dr. Gibbs Milliken of Houston, on his experiences in cholecystography.

Taylor County Medical Society held their annual banquet at the First Methodist Church at Abilene, December 4, 1925. Over 200 of the prominent citizens of Taylor County were invited.

Dr. P. C. Coleman, pioneer physician of Colorado, Texas, was introduced by Dr. B. F. Rhodes, president of Taylor County Medical Society, and presided as toastmaster. Speakers of the evening were: Drs. C. M. Rosser, and Holman Taylor, president and secretary, respectively of the State Medical Association; Judge Dallas Scarbrough; Frank Smith, county attorney of Taylor County, and Dr. J. W. Hunt, president of McMurry College. Much favorable comment was heard upon the efforts of the State Medical Association to secure enforcement of the Medical Practice Act.

Van Zandt County Medical Society met at Canton, January 1, with five members and one visitor present.

Dr. Frank L. Lee of Ben Wheeler, presented a case of suspected cholecystitis.

Dr. Wm. J. Hazel of Fruitvale, presented a case of suspected luetic meningeal sclerosis.

Wise County Medical Society met January 5, 1926, and the following officers were elected for the new year: President, Dr. W. L. Russell of Rhome; vice-president, Dr. R. T. Spencer of Bridgeport; secretary-treasurer, Dr. S. J. Petty of Decatur; delegate, Dr. J. H. Walker of Alvord; alternate, Dr. J. W. Young of Boyd; censor, Dr. P. C. Funk of Bridgeport.

Twelfth District Medical Society met at Corsicana, January 12, 13, 1926, with headquarters at the Navarro Hotel. The Invocation was pronounced by Rev. E. W. Potter; the Address on Behalf of City was delivered by Hon. John Murchison, mayor, and the Address of Welcome by Dr. J. Wilson David, president Navarro County Medical Society, after which the following Scientific Program was rendered: "Röentgenological Treatment of Some Circulatory Disorders," Dr. K. H. Beall, Fort Worth; "The Present Status of Basal Metabolism," Dr. M. D. Levy, Houston; "Prevention of Heart Disease," Dr. R. W. Baird, Dallas; "Further Observation on the Use of Tryparsamide," Dr. Titus H. Harris, Galveston; "Tumors of the Undescended Testicle, With Case Report," Dr. R. C. Curtis, Corsicana; Symposium on Cancer of the Uterus (a) "Pre-cancerous Lesions of the Cervix," Dr. E. H. Newton, Corsicana; (b) "Cancer of the Cervix," Dr. L. R. Talley, Temple; (c) "Cancer of the Corpus Uteri," Dr. I. N. Suttle, Corsicana; (d) "X-Ray Treatment of Cancer of the Uterus," Dr. R. T. Wilson, Temple; (e) "Control of Uterine Hemorrhage of Radiation Therapy," Dr. I. W. Jenkins, Waco; "Cancer of the Rectum," Dr. G. V. Brindley, Temple; "Operative Cystoscopy," Dr. Charles Simpson, Temple; "Perineal Prostatectomy and Spinal Anesthesia," Dr. R. S. Mallard, Fort Worth; "Gall-Bladder Infections and Complications From Surgical Viewpoint," Dr. T. P. McLendon, Corsicana; "Fractures Involving Elbow Joint" (lantern slides), Dr. Charles H. Harris, Fort Worth; "Perforating Ulcer of the Duodenum," Dr. L. W. Pollock, Temple; "Fractures of the Patella," Dr. R. J. White, Fort Worth; "Injuries to the Spinal Cord," Dr. H. R. Dudgeon, Waco; "Diagnosis of Surgical Diseases of the Abdomen," Dr. K. H. Aynesworth, Waco; "Cataract," Dr. Newton H. Bowman, Waco; "A New and Old Operation for Urethral Stricture," Dr. W. B. Turner, Houston; "Report of Thirty-One Cases of Foreign Bodies in the Lung and Esophagus," Dr. Geo. S. McReynolds, Temple. The section officers were as follows: Section on Medicine—Dr. J. Wilson David, Corsicana, chairman; Dr. A. E. Moon, Temple, secretary; Section on Obstetrics—Dr. M. T. Knox, Cleburne, chairman; Dr. Howard Smith, Marlin, secretary; Section on Surgery—Dr. Chas. Garrett, Hillsboro, chairman; Dr. C. E. Collins, Waco, secretary.

At the business session the following officers were elected for the ensuing year: President, Dr. O. F. Gober, Temple; secretary-treasurer, Dr. Doyle L. Eastland, Waco (re-elected); councilor, Dr. N. D. Buie, Marlin (re-nominated).

In connection with the meeting of the society, the Woman's Auxiliary met in the ball room of the Navarro Hotel and the following program was enjoyed: Invocation by Rev. Ilion T. Jones, Corsicana; Address by President of State Auxiliary, Mrs. S. A. Collum, Texarkana; Address of Welcome, Mrs. W. T. Shell, Corsicana; Response, Mrs. R. J. Alexander, Waco; Vocal Solo, Mrs. Harry Williams, Corsicana.

The next meeting of the society will be at Temple in July, and the meeting will last only one day instead of two as heretofore.

El Paso County Medical Society Woman's Auxiliary met at the Toltec Clubhouse with a large attendance. Mrs. H. H. Varner was chairman of the meeting. This being the regular time for the election of officers, the following were elected for the ensuing year: President, Mrs. George Brunner; vice-presidents, Mrs. K. D. Lynch, Mrs. W. J. Davis and Mrs. Hugh White; treasurer, Dr. Bessie Sweet Werle; secretary, Mrs. R. A. Wilson; corresponding secretary, Mrs. W. S. Sharp.

The Cotton Belt Surgeon's Association met at the Cotton Belt Hospital, Texarkana, Arkansas, December 11, 1925. After the invocation by the Rev. A. W. Sidders, Dr. P. W. Lutterloh of Jonesboro, Arkansas, delivered the Presidential Address.

The following scientific program was then taken up: "Fractures of the Long Bones," Dr. Louis Abramson, Shreveport; "Fractures Involving the Elbow Joint," Dr. J. H. Dorman, Dallas; "X-Ray Visualization of Gall-Bladder," Dr. Wood, Texarkana; "Laboratory Methods Demonstration," Miss Herndon, Texarkana; "Gunshot Wounds of the Abdomen," Dr. P. W. Lutterloh, Jonesboro, Arkansas, with Discussion by Dr. G. A. Caldwell of Shreveport; "New Treatment for Idiopathic Epilepsy," Dr. Carlile, Texarkana; "Treatment of Calculus in Lower Ureter," Dr. A. E. Chace, Texarkana. The papers were all freely discussed.

A splendid repast was served by the nurses in the dining room of the hospital. The election of officers was held at this time and the following officers were elected: President, Dr. Jno. S. Turner, Dallas; secretary-treasurer, Dr. William Hibbits, Texarkana; vice-presidents, Drs. Louis Abramson, Shreveport; William H. Morehead, Stutgart, Arkansas; G. S. Cannon, Fornfelt, Missouri, and C. Joyce, Fort Worth.

At 7:45 p. m. the association was invited to participate in a joint meeting of the Miller and Bowie County Medical Societies.

The next meeting of the Association will be at Texarkana, Arkansas.

Tri-State Medical Society, embracing Arkansas, Louisiana and Texas, held its twenty-first annual meeting at Marshall, January 20 and 21, 1926. The following scientific program was rendered: "Tumor of the Iris, with Case Report," Dr. J. B. Baldwin, Marshall; "Complicated Tonsillectomies," Dr. R. H. T. Mann, Texarkana; "Diagnosis and Management of Post-Operative Obstruction—Case Report," Dr. Thomas J. Fleming, Shreveport; "Appendicitis," Dr. William Cantrell, Greenville; "Eye Injuries and Their Relation to Compensation," Dr. J. L. Scales, Shreveport; "Surgical Management of Duodenal Ulcer," Dr. Rogers Cocke, Marshall; "Infections of the Gall-Bladder," Dr. James O. Graves, Monroe, Louisiana; "Management of Frontal Sinus Disease," Dr. Herbert H. Lanier, Texarkana; "Dysphonia, the Danger Signal in Intra- and Interlaryngeal Affections" (lantern slides), Dr. Homer L. Dupuy, New Orleans; "The Mobilization of Ankylosed Joints," Dr. Ben L. Schoolfield, Dallas; "Small Injuries to the Elbow Joint, with Their Treatment" (lantern slides), Dr. Charles H. Harris, Fort Worth; "Recent Progress in Joint Surgery," Dr. Willis Campbell, Memphis, Tennessee; "The Care of Infantile Paralysis" (lantern slides), Dr. Henry W. Meyerding, Mayo Clinic, Rochester, Minnesota; "Tuberculosis, with Moving Picture Films," Dr. Charles R. Gowen, Shreveport; "Urological Problems," Dr. John R. Caulk, St. Louis; "Carcinoma of the Bladder," Dr. Edward White, Dallas; "Pituitary Extract as a Therapeutic Agent," Dr. H. M. Winans, Dallas; "The Use of Radium in Some Benign Surgical Cases," Dr. J. K. Smith, Texarkana; "The Treatment of Pyorrhea Alveolaris with Diathermy" (lantern slides), Dr. William A. Lurie, New Orleans; "Cardiospasm" (lantern slides), Dr. E. B. Freeman, Baltimore; "Cardiac Conditions Simulating Surgical Abdomen," Dr. Thos. P. Lloyd, Shreveport; "Routine Treatment of the Average Decompensating Heart," Dr. Geo. L. Carlisle, Dallas; "Cholecystitis," Dr. Preston Hunt, Texarkana; "Non-Surgical Drainage of the Gall-Bladder a Theory No Longer," Dr. H. E. Murray, Texarkana; "Surgical Significance of Jaundice," Dr. S. A. Collum, Texarkana; "End Results in the Treatment of Pulmonary Tuberculosis with Artificial Pneumothorax" (lantern slides), Dr. Alvis E. Greer, Houston; "Factors in Early Diagnosis of Rectal Cancer" (lantern slides), Dr. Curtice Rosser, Dallas; "An Interesting Case," Dr. J. E. Knighton, Shreveport; "The Treatment of Gynecological Conditions with Diathermy," Dr. L. J. Kosminsky, Texarkana; "Some Advantages of Low Cesarean Section," Dr. J. C. Willis, Shreveport; "Some Unusual Urogical Cases," Dr. I. B. Rougon, Shreveport; "Pyelitis," Dr. Charles Adna Smith, Texarkana; "The Treatment of Calculus in Lower Ureter," Dr. A. E. Chace, Texarkana; "Medico-Legal Aspect of Drug and Alcoholic Addiction," Dr. John S. Turner, Dallas.

A banquet was tendered the members of the Tri-State Medical Society by the members of Harrison County Medical Society on the evening of January 20.

At the election of officers the following were elected for the ensuing year: President, Dr. F. S. Littlejohn, Marshall; vice-presidents, Drs. J. G. Yearwood, Gayle, Louisiana; A. C. Chace, Texarkana, Arkansas; J. A. Daniels, Carthage, Texas; councilors, Drs. J. E. Knighton, Shreveport, Louisiana; H. T. Mann, Texarkana, Texas, and Richard Granberry, Marshall; secretary, Dr. Frank H. Walke, Shreveport (re-elected).

Texarkana, Arkansas, was selected as the place of the next meeting.

PERSONALS.

El Paso Physician Entertains Distinguished Guests at Juarez.—Dr. and Mrs. Felix P. Miller had as their dinner guests in Juarez recently, Dr. and Mrs. George W. Crile of Cleveland, Ohio; Drs. Allen Craig and E. W. Williamson of Chicago, and Dr. John W. Brown of El Paso. The orchestra played the soft airs typical of Mexico for the entertainment of Dr. Miller's guests.

Texas Dermatologist Honored by New York Academy of Medicine.—Dr. I. L. McGlasson of San Antonio recently took part, by invitation, in the discussion of papers read before the Section of Dermatology and Syphilis of the New York Academy of Medicine.

Fort Worth Doctor Attends His Thirty-sixth Session of the North Texas Medical Association.—Dr. I. L. Van Zandt, who is 86 years of age, recently attended the ninetieth semi-annual meeting of the North Texas Medical Association, which met at Fort Worth. For the past 36 years he has been a member of this association and has averaged attending one meeting each year during that time. He attended the Southern Medical Association meeting in Dallas in November and is looking forward with a great deal of pleasure to attending the meeting of the American Medical Association at Dallas in April. If he does attend (and let us hope that he will), he can give some of the learned brethren from other sections of the country an object lesson in enthusiasm, for Dr. Van Zandt not only attends these medical meetings, but participates actively in the discussion of scientific papers, and, furthermore, he can give fifty-seven reasons why the new-fangled U. S. Pharmacopeia should not have cast saw-palmetto in the discard.

Marlin Physician Injured in Automobile Accident.—Dr. N. D. Buie of Marlin was seriously injured when his heavy car plunged through a bridge into a stream some twenty feet below. He is reported to be convalescing as rapidly as might be expected.

Thrall Physician Injured in Automobile Collision.—Dr. S. B. Kirkpatrick of Thrall, was painfully injured in an automobile collision near Lorena, just before Christmas. He was well on the road to recovery when last heard from.

Fort Worth City Physician Appointed.—Dr. Aubrey O. Hampton was appointed city physician by the director of public health and welfare, Dr. L. H. Martin. Dr. Hampton is a graduate of the public schools of Whitewright and of Baylor Medical College in Dallas. He has been practicing in Fort Worth since June, 1925.

Dallas Physician Seriously Hurt by Automobile.—Dr. C. W. Simpson of 3517 Beverly Drive, was seriously injured in an automobile accident near Stoneleigh Court. He is reported to have sustained a dislocated shoulder and a fracture of both bones of the left leg. He was crossing Maple avenue with his wife when a passing touring car knocked him down and failed to stop. He was taken to Baylor Hospital for treatment.

Baylor Medical Alumni Elects Officers.—Baylor Medical Alumni met December 8 at Dallas and elected the following officers and committees: President, Dr. Ben R. Buford; vice-president, Dr. Cyrus Janison; secretary-treasurer, Dr. W. F. Pickett; scientific program committee, Drs. Ben Rubenstein, Stuart Seeley and Dexter Hardin.

DEATHS

Dr. W. Augustus Allen died at his home near Silver Lake, Van Zandt County, January 5, 1926.

Dr. Allen was born in Mississippi in 1842, and when a small boy moved to Texas with his parents, and settled on a farm three miles south of what is now Grand Saline. In the early "fifties" he was engaged in the drug business at Grand Saline with W. O. Williams. He served in the Confederate Army during the Civil War, returning after the war to his home. There, during the administration of E. J. Davis, some "Carpet-Baggers" attempted one night to murder him and his business partner, Dr. W. O. Williams. In the fight which ensued, Dr. Allen is accredited with having killed three of the ruffians with his knife. Several nights later a number of the ruffians attacked him near Canton, and he used his double-barrelled shot gun with such good effect that nine of them were found dead by the roadside the next day. The following day he killed two more of the lawless gentry who had attacked him one mile from Canton, and then told his friends good bye and moved to Indian Territory. He practiced medicine in the Territory under the tutorship of Dr. Lindsey until about 1880, when he returned to Grand Saline.

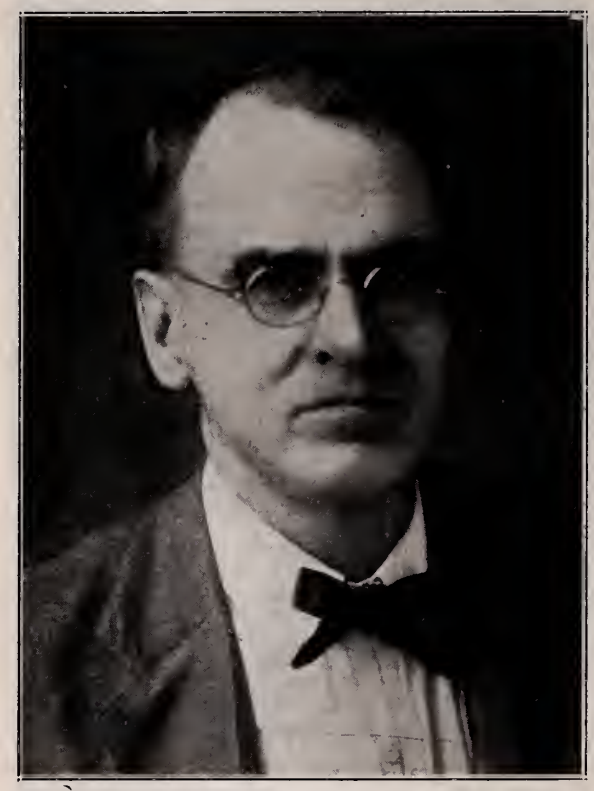
While in the territory he was married to an Indian woman to which union four or five children were born. His wife died shortly after he moved to Grand Saline and he married the second time about 1888. This wife also died and he was married a third time during the "nineties."

Dr. Allen was not a graduate of medicine, but was licensed to practice medicine under the Medical Practice Act of 1907, by years of practice. He was a loyal member of Van Zandt County Medical Society and of the State and American Medical Associations up to the time that he retired from practice on account of his age. He was a member of the Christian Church at Sand Flat. Dr. Allen will be greatly missed in his community, having been a pioneer physician of East Texas.

He is survived by his widow and five children, Mrs. R. L. Springer, Dewitt Allen, Arthur Allen, Kirby Allen and Bryant Allen.

Dr. M. L. Brown of Brownwood, died December 2, 1925, at the Baptist Hospital in Dallas.

Dr. Brown was born November 21, 1867, in the historic town of Nacogdoches, and was the son of Mr. and Mrs. B. R. Brown, pioneers of that section of the State, who came to Texas from Georgia. At the time he was growing up schools were few and his education was obtained only by persistent effort. After attending such schools as he could, he began the study of medicine at the Memphis Hospital Medical College from which graduated with honors in 1889. Returning to Texas after graduation he practiced at Goldthwaite for 21 years, moving to Brownwood in 1913, where he engaged in general practice but took special interest in electrotherapeutics. He very early became deeply interested in organized medicine and had for many years been a faithful and valuable worker in his County Medical Society and the State Medical Association of Texas. He at one time served as city physician at Brownwood. He was a member of the Methodist Church and had for many years before his death been a steward in that organization.

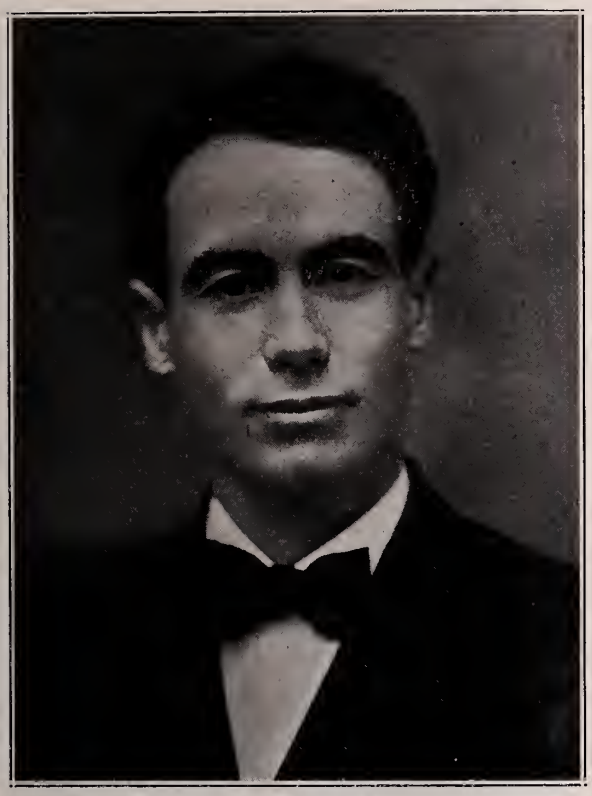


DR. M. L. BROWN.

Dr. Brown was married in 1892, to Miss Ernest L. Thompson of Coleman, Texas, and four children were born to this union. He is survived by his widow and by their four children, Mrs. Lindsey Thompson of Dallas, Mrs. Lowell Smith of Cleburne, Miss Mary Brown, a member of the faculty of the Cleburne High School, and Miss Zana Brown of Brownwood.

Dr. Dolphus E. Compere died December 11, 1925, at Hot Springs, Arkansas.

Dr. Compere was born at Graham, September 8, 1886. His preliminary education was obtained in the schools of Hubbard City and he graduated in medicine from the Baylor Medical College, April 29, 1909. He began the practice of medicine in Dallas, limiting his practice to diseases of the eye, ear, nose and throat. When the United States entered the World War, Dr. Compere was commissioned in the Medical



DR. D. E. COMPERE.

Corps of the Army and served in that capacity with distinction. He was greatly beloved in the army for entertainments that he organized for the soldiers and in which he took a leading part. Upon his discharge from the army he returned to Dallas and resumed his practice. He had been for many years an active member of the Dallas County Medical Society and of the State and American Medical Associations.

He is survived by his son, Dolphus E. Compere, Jr.; his mother, Mrs. W. T. Compere; four brothers, W. I. Compere of Dallas, C. H. Compere of Chicago, W. G. Compere of Edinburgh, and Hal Compere of San Francisco; and by two sisters, Mrs. W. A. Basom of Dallas, and Miss Vlois Compere, teacher of art at the Denton Normal.

Dr. Allen G. Heard died at his home in Houston, Texas, at 2:40 a. m., January 23, 1926. He was taken ill with pneumonia on the seventeenth of January and owing to the fact that his lungs had been damaged by gas during the World War, he was unable to combat the infection and died from respiratory failure and pulmonary edema, after an illness of seven days.

Dr. Heard was born at Cleburne, August 26, 1882. He received his preliminary education in private schools in Cleburne and Austin and graduated in medicine from the Medical Department of the University of Texas in 1906. He served an internship at the John Sealy Hospital, after which he was appointed instructor in medicine with a leave of absence to enable him to take a postgraduate course at Columbia University. He returned to Galveston and served first as instructor in medicine and later as assistant professor of medicine. Dr. Heard was distinguished throughout his medical career by his remarkable diagnostic ability and the high ideals that he maintained in his practice.

In October, 1917, he was called to active duty in the Medical Corps of the Army and was detailed as a medical officer attached to the British Army, sailing for France the latter part of October, 1917. He spent three months at Fort Chatham Hospital in England after which he went to France and served with various divisions of the British army on the immediate front until the armistice, with the exception of a period during which he was in a

DR. ALLEN G. HEARD.

base hospital at Rouen for treatment following a severe gassing. Shortly after returning to the lines he was rendered unconscious by the explosion of a shell near by and was again sent to the hospital at Rouen, where he remained only a few days and returned to the front. He received two citations for conspicuous bravery in action and was decorated with the British Military Cross by Sir Douglas Haig in person.

On his return to America, owing to the injury to his lungs from the effects of lethal gas, he severed his connection with the Medical Department at Galveston and engaged in the practice of medicine at Austin until 1922, when he moved to Houston, where he practiced up to the time of his last illness. He was a staff member of the Herman, the Methodist, the Baptist, and the Jefferson Davis hospitals. Dr. Heard had been an active member first of the Gal-

veston and later of the Harris County Medical Society and of the State and American Medical Associations, ever since 1908. He was also a member of the Southern Association of Internists, the American Society of Tropical Medicine and the Houston Philosophical Society. He was a member of the Phi Alpha Sigma Medical Fraternity and of the Elks, and was a 32nd degree Mason, belonging to the Tucker Lodge at Galveston. He was also a member of the River Oaks Country Club of Houston.

Despite his outstanding attainments, Dr. Heard was quiet, unobtrusive, and exceedingly modest, insomuch that one who knew him well said of him, "He was a clinician of rare ability and judgment, a popular and effective teacher, but above all a companion delightful."

Dr. Heard was married to Dr. Ethel Mary Lyon at Columbus, Ohio, September 17, 1910, who was associated with him in practice. He is survived by his wife; one son, Jean Heard; one sister, Mrs. A. Caswell Ellis, of Austin, and one brother, W. F. Heard, of Cleburne.

Dr. R. B. Jackson died at his home at Mexia, Texas, January 1, 1926. He was found dead in bed by members of his family. It is thought that he died of heart failure.

Dr. Jackson was born in 1859 near the Louisiana-Arkansas line while his parents were en route to Texas from their former home in Arkansas. He received his preliminary education in the public schools of Mexia and at the Sam Houston Normal at Huntsville. He then attended Tulane University, from which he received his degree in medicine in 1886. He practiced medicine at Prairie Grove, Texas, for 13 years and then moved to Bethel where he practiced for three years. From there he returned to Mexia where he practiced up to shortly before his death. He served as County Health Officer of Limestone County for many years. He very early affiliated himself with his county medical society and with the State Medical and American Medical Associations. He was not only an active figure in medical circles, but was also prominent in civic affairs and in the Democratic councils of his community. He was an active Mason and a member of the Methodist Church.

Dr. Jackson is survived by his widow, three sons, Drs. Reuben and Albert Jackson of Dallas, and Felix Jackson of Lubbock, and by two daughters, Mrs. Wright Kincagloe and Miss Norene Jackson of Mexia.

Dr. John H. Moore died at his home at San Antonio, December 28, 1925, after an illness of several months.

Dr. Moore was born in Loudoun County, Virginia, January 4, 1848. He received his preliminary education at Pott's Academy and Roanoke College of Virginia. He received his degree in medicine from the University of Maryland on March 4, 1872. He practiced medicine for several years at Waterford, Virginia, but because of poor health came to Texas in 1872, and spent some time on a ranch in Bexar County. On coming to San Antonio, he engaged in the real estate business with his brother, opening and promoting the suburb of West End. After the financial crisis of 1893, he took postgraduate work at Tulane University and then resumed the practice of medicine. Failing vision caused him to retire from practice about 1914.

Dr. Moore was for many years an active member of the Bexar County Medical Society and of the State and American Medical Associations. He was a member of St. Mark's Episcopal Church and served for a number of years as a vestryman.

Dr. Moore was married to Miss Ella Bushrod Mount of Waterford, Virginia, who died in 1921. In 1923 he was married to Miss Harriett W. Brown of San Antonio, Texas. He is survived by his widow, one brother, Samuel Moore; a sister, Rose Moore of Waterford, Virginia, and two nephews, Hunter Moore of Norristown, Pennsylvania, and Henry Gore of Longview, Washington.

Dr. Frank Paschal died at his home in San Antonio, at 11:45 a. m., Sunday, December 20, 1925, after an illness of some five months.

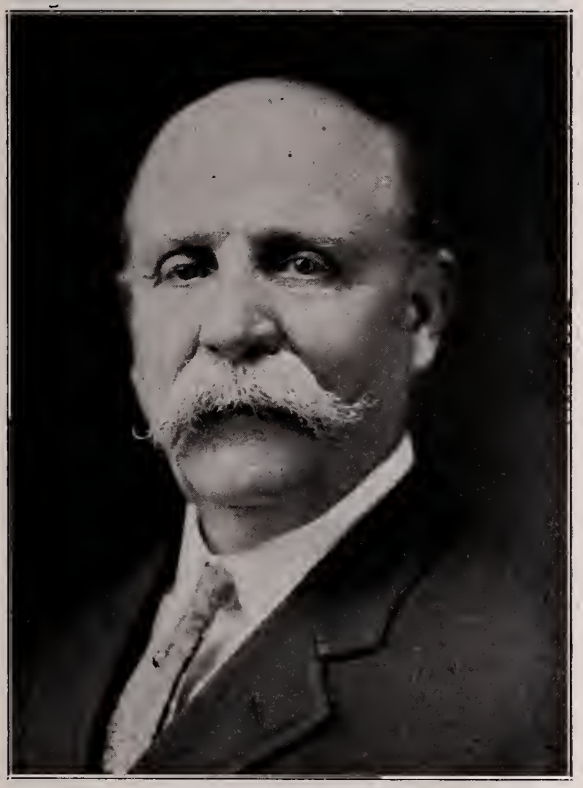
Dr. Paschal was born in San Antonio, October 22, 1849. His parents were the first American couple to be married in Bexar county, and Dr. Paschal was one of the first four Americans to be born in San Antonio. He was educated in the public schools of San Antonio, attending the first public school ever built in that city, which was located at what is now Houston and Navarro streets. In 1860 he moved with his family to Monterey, Mexico, returning six years later to take a position in Dryden's Drug Store. In 1868 he began the study of medicine under the tutelage of the revered first president of the State Medical Association, Dr. Geo. Cupples, who exerted a profound influence upon the life of his brilliant pupil.

Dr. Paschal attended the Louisville Medical College, from which he graduated in 1873, carrying off six prizes for scholarship. On his graduation he received honorable mention for the gold medal offered for a thesis on the "Principles and Practice of Surgery," and took prizes for theses on "Materia Medica and Therapeutics," and the "Principles and Practice of Medicine." By a competitive examination he won the coveted place of interne in the Louisville City Hospital, where he served one year. He returned to Texas in 1874 and began the practice of medicine at San Antonio. After six months he left San Antonio and located in the State of Chihuahua, Mexico, where a short time later he stood an examination before the National Board of Medical Examiners, which was conducted entirely in Spanish. He was the second foreigner to be granted a license to practice medicine in the Republic of Mexico. He later served as personal physician to Governor Terrazas and other military chiefs of that State. During the fearful smallpox epidemic of 1876 he was the only physician to remain at his post, and he cared for hundreds of cases of smallpox during that time. In 1876 he took charge of the battlefield seven miles from Chihuahua, and personally saw to it that all of the wounded were properly cared for. In 1878 he made a special trip to San Antonio to attend a meeting of the Texas State Medical Association, which was held there April 2-5 of that year. At this meeting he joined the Association, continuing as an active and interested member up to the time of his death.

A little later in the same year, the young doctor returned to San Antonio and was married October 14, 1878, to one of the belles of San Antonio, Miss Ladie Napier. His honeymoon trip consisted of a nineteen-day stage-coach journey to Monterey, Mexico, where he continued to practice until 1884. He was then made chief surgeon of the Mexican Central Railway System, which was completed to Monterey that year. Returning to San Antonio in 1892 he began the practice of medicine there and soon attracted attention by championing the establishment of a state tuberculosis sanitarium. In 1893 he was elected president of the West Texas Medical Society. In 1899 he was appointed city health officer of San Antonio, serving for four years in that capacity. Dr. Paschal appeared before the State Medical Association meeting at Waco, in 1900, and presented a resolution from the West Texas Medical Association, pleading the necessity for the establishment of a state tuberculosis sanitarium. He was

appointed chairman of a committee whose duty it was to create sentiment in favor of the resolution, and served continuously as chairman of this committee until 1911, when the bill establishing a state tuberculosis sanitarium became a law. He served as a member of the State Board of Medical Examiners under Governor Sayers from 1901 to 1903.

In 1903 he was appointed chairman of the Committee on Arrangements for the annual meeting of the State Medical Association, which was held that year in San Antonio. He was elected, during this meeting, as a member of a Committee on Revision



DR. FRANK PASCHAL.

of the Constitution looking towards reorganization under the principles suggested by the American Medical Association, and lent his wise counsel to the difficult task of reorganizing the State Medical Association. At this meeting, Dr. Paschal delivered the Address of Welcome; he was also chairman of the Section on State Medicine and Public Hygiene. As a fitting tribute to his conspicuous services and contributions to the State Medical Association, he was elected president, after Dr. S. T. Turner of El Paso, had asked to withdraw his own name in honor of "one whose locks have grown gray in the services of the medical profession of Texas." At the 1904 meeting of the association, at Austin, Dr. Paschal delivered a scholarly address on "The History of the State Medical Association and Its Needs." In this address he urged a single Board of Medical Examiners, a State Board of Health, and reforms in the handling of the insane. He presided over the first House of Delegates and in his address before that House, urged the division of the Scientific Program into sections, the collection and preservation of medical records, the provision of a permanent home for the association, and many other important measures, many of which he lived to see carried out. During his administration, through his own efforts and the wonderful work of the Board of Councilors, the membership of the Association was increased from 350 to 2,415, 125 county societies were organized and the treasurer was able to report a balance of $4,795.57.

In 1905 Dr. Paschal was elected delegate to the American Medical Association, in which capacity he acted for eight years. From 1906 to 1911, he served on many important legislative committees and worked untiringly for the enactment of the "One-Board Medical Bill," the Anatomical Bill, and a new Pure Food and Drug Bill, the Pharmacy Bill and a bill providing for a home for the feeble minded, all of which measures became laws of the State. In 1913 Dr. Paschal was appointed on the Committee on Collection and Preservation of Medical Records, later becoming chairman of this committee, which position he held at the time of his death. He was greatly interested in the task of collecting material for the proposed medical history of Texas, and was actively engaged in collecting data for this history up to his last illness. He was one of the founders of the Physicians' and Surgeons' Hospital in San Antonio, and also was one of the active workers for the Santa Rosa and Robert Green Hospitals. In 1914 he was made a Fellow of the American College of Surgeons, and in 1920 was elected president of the Texas Surgical Society, of which latter organization he was a charter member. In 1922 he was elected president of the Bexar County Library Association, and at a banquet given in his honor by the Bexar County Medical Society on October 19, 1922, he was made the first and only life member of that society. Dr. I. C. Chase of Fort Worth, made the principal address at this banquet. At the meeting of the State Association at Austin in 1925, Dr. Paschal delivered an interesting address before the House of Delegates, on the "First Texas Physician, Cabeza De Vaca," which met with a tremendous applause. His contributions to scientific literature are both numerous and valuable and cover a period of many years. For four years proceeding his death Dr. Paschal had been president of the Texas Pioneer Association, of which organization he was a charter member.

Not only was Dr. Paschal an active, interested and capable worker in scientific fields, but he was also deeply concerned with civic affairs and always ready to devote his time and effort in behalf of anything that he believed was right. Dr. Paschal was truly a gentleman of the old school. Dignified, courteous, ever considerate of others, he won the respect, admiration and love of all who knew him, and their name is legion. His life was one of service, and such service as few are capable of rendering. In a tribute paid to Dr. Paschal by one who had been closely associated with him, it was said of him: "As a man, he was controlled by a high sense of honor in all his relations with his fellowman. The principle of integrity was so woven into the very warp and woof of his character that in every possible condition which might come to him, it was his steadfast purpose to do the thing which was right. He was rather splendid in his special field as a doctor. In a notable degree he loved his profession, loved it for its own sake, as an agency for the relief of human pain. His attitude toward his profession was not only that of high honor, but he cherished for it the spirit of reverence. To him it was a holy thing. He was a tender-hearted man. He was very sensitive to the condition of human pain. He suffered with all who suffered. He carried a deep sense of responsibility toward all who came under his ministration, and he cherished as a glad privilege the opportunity to use his knowledge and skill for the comfort and health of his fellowmen. Truly, he reflected the spirit of

Him whom we call the Great Physician as he went about doing good."

Dr. Paschal is survived by three sons, Drs. Frank L. and Geo. H. Paschal, and Edwin G. Paschal, all of San Antonio; two daughters, Mrs. Geo. Sanders of Pearsall, and Mrs. Walter Walthall of San Antonio; two nieces, Miss May Huppertz of San Antonio, and Miss F. Fromme of Kingsville; a nephew, George Huppertz, of Chicago, and thirteen grandchildren.

Dr. Edward L. Rose died of pneumonia at his home at Port Arthur, December 16, 1925.

Dr. Rose was born near Paducah, Kentucky, February 18, 1871. He attended the schools of his community and then attended the Memphis Medical College of Memphis, Tennessee, from 1894 to 1895, after which he practiced medicine in Eastern Arkansas for two years. He then moved to Palestine, Anderson County, Texas, where he practiced medicine until February, 1925, when he moved to Port Arthur, where he practiced up to the time of his death. He graduated from Fort Worth Medical University in 1909. He served as county health officer of Anderson County from some time in 1921 until he moved to Port Arthur. He was appointed a member of the Texas State Board of Health, March 16, 1925. He was for many years an active member of the Anderson County Medical Society, and of the State and American Medical Associations. He was a member of the Woodmen of the World.

Dr. Rose is survived by his widow, Mrs. Lalla Rose, his mother, Mary E. Rose, and by two brothers, L. Dalton and Jas. E. Rose.

Dr. G. H. Richardson of Claude, Texas, died at the home of his daughter, Mrs. R. N. Winship, at Brownwood, Texas, December 22, 1925.

Dr. Richardson was born in Alabama in 1848 and came to Texas with his parents when he was a small child. After securing his preliminary education in the common schools of his community, he attended the Mobile Medical College of Alabama, from which he graduated in 1875. He was a valued member of the Childress-Collingsworth-Donley-Hall Counties Medical Society, and of the State and American Medical Associations. He retired from active practice in 1924 after 49 years of devoted service to his patients and to his community. He was visiting his daughter at Brownwood when he took sick and died after a two weeks' illness.

He is survived by his widow and five children, Geo. H. Richardson of Fort Worth, J. B. Richardson of Dallas, Mrs. R. N. Winship of Brownwood, Mrs. J. S. Stallings of Claude, and Mrs. R. J. Ratliff of Alpine.

Dr. S. A. Street of Austin, died at Wellington, Texas, his former home, December 21, 1925.

Dr. Street was born January 18, 1869, at Bluff Springs, Alabama. He received his literary degree from Southern University of Greensboro, Alabama, and his degree in medicine from the Medical Department of the University of Texas in 1901. He began the practice of medicine at Prattville, Texas, moving to Wellington in 1906, where he practiced continually until 1917, after which time he divided his practice between Austin, where his family resided, and Wellington. He very early affiliated himself with organized medicine, being first a member of Delta County Medical Society, and later of Childress-Collingsworth-Donley-Hall Counties Medical Society. He was always greatly interested in the work of the State Medical Association and of the American Medical Association, and he will be greatly missed by his professional brethren as well as by his many friends. He was a member of the Methodist Church.

Dr. Street was married to Miss Florence Harper in 1896, who with two sons, Cecil C. Street and J. Harper Street, survives him.

Dr. Claude L. Spencer of Dallas, died at the home of his sister, Miss Bernice Spencer, 622 West Second Street, Fort Worth, December 24, 1925.

Dr. Spencer was born January 30, 1893, at Mulberry, Tennessee. He received his preliminary education in the Lincoln County High School and at Texas Christian University of Fort Worth, graduating in

DR. C. L. SPENCER.

medicine from Baylor University on June 17, 1920. He had been connected with the City Health Department of Dallas ever since his graduation and was well known both in Dallas and Fort Worth, and leaves many staunch friends. He was a member of the Dallas County Medical Society and of the State and the American Medical Associations.

He is survived by his widow, Mrs. Philis Spencer of Dallas; two brothers, H. F. Spencer of Fort Worth and Homer Spencer of Dallas, and one sister, Miss Bernice Spencer of Fort Worth.

BOOK NOTES

The Art and Practice of Medical Writing. By George H. Simmons, M. D., Educator and General Manager Emeritus, American Medical Association, and Morris Fishbein, M. D., Editor, The Journal of the American Medical Association. 12mo., Cloth, 163 Pages, 21 Illustrations. Price, $1.50. The Americal Medical Association, 535 North Dearborn Street, Chicago, Illinois.

This little volume which the editors reveal in the preface is the outgrowth of a publication, Suggestions to Medical Authors, used for many years as a guide by the American Medical Association

Press, is intensely practical and is the result of the judgment of men who have had a large experience in the editing of scientific papers. The book abounds with much condensed and highly practical information, such as common abbreviations for words frequently used in medical writings and also lists of words commonly misspelled, and where several spellings are permissible the preferable spelling is given. There are two supplements to the book, one containing a list of the periodicals regularly included in the Quarterly Cumulative Index published by the American Medical Association, and the other including abbreviations not so regularly indexed. For those who are called upon to write scientific papers, or for those to whose lot falls the task of editing such manuscripts, this little volume is most heartily recommended.

Surgery of Pulmonary Tuberculosis. By John Alexander, B. S., M. A., M. D., Assistant Professor of Surgery, University of Michigan Medical School, etc., with Introductions by Hugh Cabot, M. D., C. M. G., LL.D., F. A. C. S., and Edward R. Baldwin, M. A., M. D. Awarded the 1925 Quinquennial Samuel D. Gross Prize by the Philadelphia Academy of Surgery. 8vo., Cloth, 356 Pages, 24 Chapters, 53 Engravings and 12 Plates. Price, $4.50. Lea and Febiger, Philadelphia and New York.

This splendid monograph on thoracic surgery as applied to the treatment of pulmonary tubeculosis, is stated by the author to be the first volume on this subject written in the English language. Dr. Alexander is unquestionably an authority in his special field of surgery, and the book that he has written shows both a thorough acquaintance with the work of other thoracic surgeons and an intimate personal knowledge of the subject, based upon an unusual experience in this work. Upon reading the volume, one is impressed with the desire of the author to be conservative in the true sense of the word. The results of large numbers of thoracic operations are given, selected from a variety of sources. No attempt is made to make the results appear more favorable than the facts would justify.

No less an authority than Dr. Hugh Cabot commenting upon this work states, "Doctor Alexander has not entered the field as an advocate of some pet method of his own, but has quite dispassionately set forth the facts. He has given us ample detail in technical matters so that we need not fall into the pitfalls of the past. It appears that even at this stage of its development over sixty per cent of the patients upon whom radical surgery has been attempted for the amelioration of pulmonary tuberculosis are importantly better off. Unless this field is very different from other fields of surgical endeavor, we may expect still better results to follow." The fact that this volume was awarded the Samuel D. Gross prize for 1925 by the Philadelphia Academy of Surgery is indeed significant.

Text-Book of Orthopedic Surgery for Students of Medicine. By James Warren Sever, M. D., Boston, Mass., Assistant Orthopedic Surgeon, Children's Hospital, Boston; Instructor in Orthopedic Surgery, Harvard Medical School, etc. 8vo., Cloth, 353 Pages, 10 Chapters, 199 Illustrations. Price, $4.50. The Macmillan Company, New York, 1925.

This excellent text-book on orthopedic surgery is written in a clear and readily understandable style, giving the principal conditions requiring orthopedic treatment and briefly outlining the accepted methods of treatment for such conditions. The text is aided greatly by numerous excellent illustrations, most of which are actual photographs or are prints from radiograms. Schematic drawings are used wherever necessary. The book should be of value not only for the medical student for whom it was written, but for the general surgeon and the orthopedist as well.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Otology, Rhinology, Laryngology, Hygiene, and other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, with the Collaboration of Chas. H. Mayo, M. D., Rochester; Sir John Rose Bradford, M. D., London; William S. Thayer, M. D., Baltimore; Frank Billings, M. D. Chicago; A. McPhedran, M. D., Toronto; Sir Henry Rolleston, K. C. B., M. D., D. C. L., London; Seale Harris, M. D., Birmingham, Alabama; Hugh S. Cumming, M. D., D. P. H., Washington, D. C.; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; Charles Greene Cumston, M. D., Geneva; John Foote, M. D., Washington, D. C.; Charles D. Lockwood, M. D., Pasadena, California; A. H. Gordon, M. D., Montreal. Correspondents: James Burnet, M. D., Edinburgh; Thomas Linn, M. D., Nice, France. Thirty-fifth Series, 1925. Volume I, 8vo., Cloth, 301 Pages, Illustrated. Volume II, 8vo., Cloth, 311 Pages, Illustrated. Price, $4.00 per Volume. J. B. Lippincott Company, Philadelphia and London, 1925.

The International Clinics have long enjoyed a deserved popularity. The clinical lectures and original articles which they contain are always written by accepted authorities in their respective fields and should aid very greatly in enabling the doctor, whether he be a general practitioner or a specialist, to keep abreast of the times. The articles are well selected and clearly and concisely written, and the illustrations are adequate.

Preventive Medicine. By Mark F. Boyd, M. D., M. S., C. P. H., Member of Regular Field Staff, International Health Board of Rockefeller Foundation; Formerly Professor of Bacteriology and Preventive Medicine in the Medical Department of the University of Texas. Second Edition. 8vo., Cloth, 429 Pages, 135 Illustrations. Price, $4.00. W. B. Saunders Company, Philadelphia and London, 1925.

This second edition of the valuable work of Dr. Boyd reveals a thorough revision of the preceding edition. Among other additions to the volume may be mentioned the account of the recent work on immunization against scarlet fever and measles, the activated sludge process for sewage disposal, the newer method in dealing with municipal water supplies, and the chapters on dietary deficiency diseases.

Landis Compend of Obstetrics. Especially Adapted to the Use of Medical Students and Physicians. Revised and Edited by Clifford B. Lull, M. D., Instructor of Obstetrics, Jefferson Medical College, Philadelphia; Assistant Obstetrician to the Maternity Department, Jefferson Medical Hospital, etc. Tenth Edition, 12mo., Cloth, 283 Pages, 84 Illustrations. Price, $2.00. P. Blakiston's Son and Company, Philadelphia.

This little book is, as its title indicates, not a text-book on obstetrics, but a compend to enable the medical student and the physician to quickly review the subject. The text is in the form of questions

and answers. Among the other additions to be found in the present edition are the detailed technic of the Potter method of podalic version and of caesarean section; the Rubin test for artificial pneumo-peritoneum; Kielland forceps; the newer method of disinfection of the blood stream in puerperal sepsis, and latest thoughts on anesthesia in labor, and the treatment of toxemia of pregnancy. Quite a few changes have been made in the illustrations, and these changes have in each instance been a distinct improvement. The book will bear a more careful proof reading, as typographical errors are rather numerous.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Associate Editors: Carey F. C. Coombs, M. D.; F. R. C. P. (Medicine); A. Rendle Short, M. D., B. S., B. Sc., F. R. C. S. (Surgery). Forty-third Year, 1925. 8vo., Cloth, 548 Pages, 43 Plates and 87 Illustrations. Price, $6.00. William Wood and Company, New York City.

Perhaps an idea of the contents of this volume of The International Medical Annual could be given in no better way than to enumerate the list of contributors as follows: A. W. Adson, George A. Allan, E. Wyllys Andrews, Edmund Andrews, Joseph Bloomfield, Charles Corfield, A. Tudor Edwards, William E. Fothergill, Herbert French, Ernst W. Hey Groves, L. W. Harrison, C. Thurstan Holland, J. Ramsay Hunt, Robert Hutchison, Frederick Langmead, E. G. Graham Little, A. E. J. Lister, J. P. Lockhart-Mummery, Hugh Maclean, Joseph Priestley, Sir James Purves-Stewart, Sir Leonard Rodgers, John D. Rolleston, A. Rendle Short, Sir John Thomas-Walker, Sir W. I. DeCourcy Wheeler, A. J. M. Wright, William H. Wynn. It will be noted that this list contains many names internationally famous, and that since the work is edited in the United Kingdom, the majority of the contributors are British. The numerous well-chosen and well-executed illustrations add materially to the very readable text.

Clinical Features of Heart Disease. An Interpretation of the Mechanics of Diagnosis for Practitioners. By Leroy Crummer, M. D., Professor of Medicine, University of Nebraska. 8vo., Cloth, 353 Pages, 25 Chapters with Introduction, Appendix and Index. Price, $3.00 net. Paul B. Hoeber, Inc., New York, 1925.

The author informs us in his preface that this volume is largely the result of his clinical observations during the time he was instructor in the School of Military Medicine at Fort Oglethorpe. Dr. Crummer follows Mackenzie in laying a great deal of emphasis upon the clinical rather than on the laboratory and experimental side of diagnosis. The various forms of heart disease are graphically depicted in the fifteen chapters into which the volume is divided. The book will be found of great value not only to the practitioner and student, but to the cardiologist as well.

Chemical Pathology. Being a Discussion of General Pathology from the Standpoint of the Chemical Processes Involved. By H. Gideon Wells, Ph. D., M. D., Professor of Pathology in the University of Chicago, and in the Rush Medical College, Chicago. Fifth Edition. Revised and Reset. 8vo., 790 pages. Price $8.50 net. W. B. Saunders Company, Philadelphia and London.

As the author of this admirable work has noted in his preface, the advance of biological chemistry during the five years that have passed since the last edition, has been such as might require several volumes to consider every detail. The present volume is an excellent compilation of the more important of these advances, admitting only of facts and of those theories for which substantial experimental proof has been given. In a few instances new theories have replaced older ones or have opened up a new field. In the present volume the majority of these theories have been given consideration.

One of the prominent omissions is that of detailed explanation of the colloid chemistry of the cell and its constituents, granting, as the author states, that these basic facts are now well known to the majority of physicians and biologists. In dealing with the chemistry of the immunity reactions, relatively little is said of the specificity of such reactions, but some five pages are devoted to a discussion of non-specific immunity, a subject not dealt with in previous editions. Less space is given to detailed consideration of serologic reactions for syphilis, but each of the newer methods are outlined. In this edition there has been added an entire chapter on hemolysis.

Several pages are written on recent observations on accessory food substances, especially on Carrell's work on trephones. An exhaustive treatment of the nature and occurrence of the vitamines has been omitted, the author assuming that these facts are now well known. The chapter on calcification, especially that portion treating of rickets, has been considerably enlarged by some ten pages of new material being added.

A number of paragraphs on the relation of tumors of the glands of internal secretion to chemical blood pathology have been included in the chapter on the chemistry of tumors. Contrary to what might have been expected on account of the decided increase of our knowledge of the endocrine glands, the author includes little new material on the chemical pathology of their secretions.

In general, the book is well supplied with references to the original articles and to bibliographies, from which one desiring to pursue a subject further may do so in detail.

Feeding, Diet, and the General Care of Children. A Book for Mothers and Trained Nurses. By Albert J. Bell, A. B., M. D., Assistant Professor of Pediatrics in the Medical Department of the University of Cincinnati, etc. Second Edition, Revised; 12mo., Cloth, 290 Pages, Illustrated. Price, $2.00 net. F. A. Davis Company, Publishers, Philadelphia.

This excellent little volume is written especially for the mother and the nurse, and it is not intended as a text-book on pediatrics for the physician. Its instructions are given in terms that the mother and nurse can readily understand. The book includes besides much valuable information concerning the diet and care of children, many tables which will be found helpful in preparing milk formulas and diets.

Diseases of the Heart. By Sir James Mackenzie, F. R. S., M. D., F. R. C. P., LL.D., Ab. & Ed., F. R. C. P. I. (Hon.). Fourth Edition, Thoroughly Revised. Royal 8vo., 496 Pages, 69 Chapters, Illustrated. Price, $9.00. American Branch, Oxford University Press, New York City.

This fourth edition of Dr. Mackenzie's classical text-book on diseases of the heart was published posthumously. The work itself is so familiar to medical men everywhere that little need be said concerning its value. The present edition has been thoroughly revised and much subject matter has been included to bring the work up to date. The volume stands as a fitting memorial to a great intellect, a great clinician, a great country doctor.

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Shall We Persist in Our Publicity and Enforcement Campaign? There are those who would give a great deal to know what our conclusions will be when the matter next comes to decision. Much trouble could be avoided and much money saved, if we could make it clear now what we propose to do. Of course, we cannot do that. The committee in charge of the campaign must report to the House of Delegates and the House of Delegates must decide. There will be no House of Delegates, in all probability, until May 24. In the meantime, we can only speculate, and keep the matter before our members. This latter we hope to do fairly and squarely, thereby contributing what we may to a proper decision.

The chronic violators of the Medical Practice Act, and the quacks in general, are quite frank to say that if our campaign is to be made permanent, that is, as permanent as necessary to get results, they will seek greener pastures. It is the opinion of many of these, however, that the campaign is merely the proverbial tempest in a teapot, and an effort to follow a "mad leader," and that everything will be lovely after next May. Of course, if that is true, nobody need be alarmed and the only harm that has been done is the needless expenditure of a lot of good money and much needed energy. We have had to employ legal and newspaper talent, and incur much other expense, and the quacks have had to do likewise. The campaign might have been discontinued sometime ago to our mutual advantage unless it is to be a fight to the finish.

There are those among our own number who feel that we are making a serious mistake in both expenditure of money and the assumption of what they consider an unfortunate attitude before the public. They feel that these prosecutions and our indulgence in newspaper publicity are all unprofessional and urge that should we succeed in eliminating the present groups of cultists and quacks, others would arise to take their places, and the war would have to be waged all over again. The latter is the least impressive of the arguments we have heard presented by the opposition. It is quite true that one piece of quackery follows another, and one cult succeeds another, but it is equally true that this thing happens because we do not persist in our educational endeavors. If we could bring about a general and proper understanding of the problem of medical education and qualification at any particular time, it would thereafter be a comparatively easy matter to keep the oncoming generations informed. Indeed, could this be done the public would assume its own responsibilities and relieve us of a serious burden. This is not without the range of possibility. If we were merely seeking to oust the chiropractors, for instance, or stop the sale of patent medicines, the task would, indeed, be a hopeless one and we would not be for it. The public has learned many things of importance pertaining to every day affairs, and it can learn about matters of public health, at least to the extent necessary to protect itself. It will not do this, however, unless those who know and who appreciate the importance of the project, take the lead and for a time stand the brunt of

the battle. That is exactly what we are endeavoring to do now.

That the situation is rather encouraging in this regard, is evidenced by the increased number of favorable editorial comments found in the lay press, and the increasingly large number of persons in other walks of life who espouse our cause. Indeed, where a few years ago even health departments avoided the subject of scientific medicine on account of its controversial character, now not only health departments but welfare organizations as well, are offering their support, some of them unqualifiedly. There are organizations of a mixed lay and professional character that have for their sole purpose of existence the proper education of the public on these very subjects. If all of this be true, then why should we *not* persist, at least until our services are not so badly needed?

We will not at this time undertake to argue the question from our personal viewpoint, or from that of any of those entrusted with this campaign. Perhaps it is better to turn to an outsider, one who has thought the matter out from the angle of the lay public, and who is mentally qualified to do exactly that. We have before us an extended editorial from the *Kingsville Record*, a paper published in the midst of a fair amount of quackery, as always is the case in a rapidly developing and prosperous country. We have seen many comments, some of them perhaps more to the point and keener in analysis, but none which appear to us to reflect the reaction of the intelligent lay public to our campaign so well as this one does. Perhaps we should not quote at such length, but we deem it important that our readers determine something of the impression our campaign is making on the lay public, and it cannot very well be done any other way. The item follows:

"ROSSER MUST BE RIGHT.

"The medical profession has at last come to publicity; not in the sense of personal aggrandizement, but as a collective body, sincerely seeking to acquaint the lay public with the simple things of common reasoning wherein public health is concerned. The medical profession, as a whole, since the art was first practiced, would seek rather to prevent than cure disease. Unconsciously, for these ages, there has existed, in the public mind, some unwarranted mystery in the practice of medicine, and this has been augmented by the necessary application of Latin terms and derivatives so abundantly used in the concoction of medicines, either simple or complex. The public, in other words, has persistently wrapped the medical profession about in this veil of mystery and the profession in turn has for all this time permitted the mystery to exist, with no idea of subterfuge or of profit in such mysterious surroundings. But along with the new order of things, come also this new order of revolution in the ranks of medicine. The public health no doubt has been instrumental in awakening the medical profession to a sense of duty; and the departure is to be hailed with gratitude by this same public beset as it is on all sides by the dangers of malpractice and the still greater menace of ill health by reason of the legion complexities of modern life. One of the methods adopted in getting facts before the public is printer's ink to be used judiciously, yet with a frankness and in a plain manner calculated to be understood by the most simple of us.

"That is in substance, the plan of Dr. C. M. Rosser, president of the Texas Medical Association, as he spoke last Thursday night before the Nueces County Medical Society, and invited guests. Dr. Rosser is more than a successful surgeon; he possibly would have made a greater success on the lecture platform, or in the practice of some other profession wherein oratory is the power to move mountains; for Doctor Rosser is a brilliant speaker. He possesses that rare faculty of driving home his contentions with a force well calculated to remain placed, and yet at the same time tempers biting irony, stinging sarcasm and desperately serious facts with the rich wine of all true oratory—witticism, as relief for a dangerous overflow of emotions—or the appearance of boredom.

"The very earnestness of this man is an inspiration; he eagerly and confidently takes up the ponderous subject of medicine, weaves his magic spell of words, twists the mystery of the profession about into the light and leads his hearers into the charming paths of entertainment. Under the persuasive influence of his voice one lets a late hour hurry on into a still later one, and sits for another flight of moments in fascinated silence, or breaks forth in laughter with an injection of well placed humor. Dr. Rosser, in his earnestness, lifts the exalted medical profession on to a still higher plane; he tells in simple language of its earnestness, and of its great desire to delve deeper and ever deeper into the mysteries of science that the world's suffering might be met and conquered. He tells of the advancement, and of the miracles, by comparison, performed in this day of intelligent application of science as it concerns medicine and surgery. Dr. Rosser is of the old school, yet he preaches and practices the new theory. He makes little of the fact that for some fifteen years he has taught surgery in a Texas medical college without pay, and has given to Texas of his talent without thought of the sacrifice; thus he is of the old school, and the new. The medical profes-

sion seeks first to relieve pain, to prevent disease, then these other things of honor and recompense might come if they may. That is the old school and its trail leads across the centuries marked with the stately and wondrously beautiful monuments of sacrifice, of devotion to a great cause, to the cry of a disease-racked humanity, to good Samaritanism.

"Educating the public, as a program outlined by the Texas Medical Association, in no wise implies reflection on the intelligence of the Texas public. The whole idea as incorporated, is, as we gather it, to acquaint the lay public with the intent and purposes of the medical profession, to offer by suggestion, the lawful allowances of legalized practice and the Association's close relationship with the Texas Public Health Service. This latter feature alone bears the stamp of approval by every citizen, no matter of what remediable persuasion. It has been our pleasure to know the full working strength of both the federal and state health departments, and it is hardly possible for the public to know fully of this work and its sweeping results upon general health conditions; accomplishments are simply unbelievable. People do not wilfully violate health laws or sanitary laws with the purpose of bringing on ill-health and disease; most of us pursue the way of least resistance in these matters as well as other things. And so long as abounding health is ours, the painful, morbid thought of evil results commands but little of our patience or thoughts. We come only to these dutiful ways of thinking when disease or pain strikes, and we suffer. We have been content to pursue our own set ways with the false theory of sufficient unto the day is the evil thereof acting as a salve to pricks of conscience. The medical profession seeks to enlighten us, aid us, associate themselves with us in making the world a healthier and a better place in which to live. Publicity must be utilized to put the message of co-operation over. Dr. Rosser, president of the Texas Medical Association, does not speak as the practitioner, but as a friend to men, with an abiding faith in the established rules of science, in the proven theory of prevention first, and cure second. He speaks with the voice of authority gained by experience."

Approaching the problem strictly from the standpoint of newspaper advertising, Mr. Wm. M. McIntosh, editor of the *San Antonio Light*, delivered an address before the Bexar County Medical Society, quite unusual in character and equally as convincing—all the more so, in view of the known friendliness of the author for the medical profession. We quote this address ("*Ethics and Ink*") from the *Medical Record and Annals*, the publication of the Bexar and Harris County Medical Societies, as follows:

"The time has passed when the medical profession can stand behind a cloak of ethics and ignore advertising.

"Adopting a 'holier than thou' attitude and spending money to have laws legislated to make it tough on the quack doctor may be a fine indoor sport, but it will never protect the people so long as printers ink is available.

"When people won't pay any attention to the ten commandments, doctors will never devise a plan that is more effective.

"The papers and magazines fairly reek with the advertisements of physical culturists, cure-all lotions, etc., while the members of the medical profession peek through their curtain of ethics, latin and symbols and wonder how they can do it.

"They are able to do it because you haven't moved a muscle to 'fight the devil with fire' and prevent it or at least make it a little more difficult by feeding the public the same medicine—printer's ink.

"Last year, the *San Antonio Light* turned down approximately 150,000 lines of medical and quack advertising by a censorship developed from a lay mind. What argument has the medical profession for standing idly by and making a newspaper shoulder this responsibility?

"I can have no selfish interest in even suggesting that you should advertise. For I know this, that a well-written message in positive language over the names of the members of the Bexar County Medical Society will by no means swell the medical lineage we now carry. And I do not expect that the most enthusiastic effort on the part of your society will make up for the deficit.

"A short time ago the papers devoted liberal space to the Lemley case on vaccination. The most I received from your society was a criticism that the man was looking for cheap publicity. Where was the medical society all this time? If one of your members had dared to give an interview with one of our reporters you would have kicked him out of your society as a cheap publicity grafter.

"It is time you were awakening to the fact that you owe something to society other than your ability to cure and relieve. The city in which you live is not what it is by reason of your cleverness as a doctor and never will be. Cities are made from the efforts put forth by business and professional men outside of their chosen vocation.

"I am willing to admit that your medical practice act is a marvelous instrument of law. And I am prepared to praise you to the sky for all the time, effort and money spent in having it placed on the statutes. But you are the only ones who know of its existence, with the possible exception of a few lawyers and, of course, the so-called quacks.

"Advertising by your society will never accomplish anything if it is to come in the nature of a tirade against those outside the pale of your organization. While you are developing a halo around your own head, don't forget that the other fellow has a few ideas of his own, and also that there are millions in this country who believe that he has a very effective method of relieving and curing. Also that he can

produce evidence that satisfies the layman that he has the goods.

"Cascara and printer's ink have made many a fortune in this country and will continue to do so, despite all the laws, edicts and ukases you might put forth.

"I would be the last one in the world to tear the mantle of dignity from the shoulders of your profession. I hope the romance of the family doctor will live forever. But, sad to relate, each day sees him fading from the picture and giving place to the specialist.

"Not so long ago, the one who even suggested advertising for a church would be sentenced to eternal damnation. Today, the metropolitan newspapers are filled with church advertising. The churches are "advertising to beat hell." Take a lesson from that.

"Advertising has been reduced to a science, just as much as your profesion. Results are not guaranteed by advertising any more than you can guarantee results. But the problems have been reduced to a scientific certainty in both cases.

"Talk to the people in common, garden variety English. Throw away your Latin and tell the people your story in a way they can understand. Your story has an appeal that touches 100 per cent of the people on earth—life.

"Finally, remember that running the other fellow down merely puts you on his payroll. As I see it, you have enough to do to take care of yourself. Forget the other fellow for the time being at least. In that way you will best preserve the memory of the family doctor."

Recently the *Dearborn Independent* drew a parallel between the attitude of the medical profession in Europe and that of the profession in the United States, on the general subject of medical publicity, from which we take the following, which is apropos:

"They are having a row across the water with reference to medical instruction through the press. A doctor gave some information about colds to a reporter who, in printing the matter for the public benefit, inadvertently mentioned the doctor's name, whereupon the General Medical Council removed the doctor's name from its register of practicing physicians. It was shown that the doctor expressly forbade the use of his name, but that made no difference. Now the whole question is up for discussion. The United States, of course, is used as the chief example of the good and bad of medical publicity. Good in this, that it has medical publicity; bad in this, that most of the doctors who write do not practice, and most of the doctors who practice do not write. The United States method has the disadvantages (not through connivance of the medical profession, however) of opening up the news columns to dangerous publicity for all sorts of fakes—take the columns of telegraphic news given to Abrams' 'box' for example. But on the whole, the American method seems to be the best that has thus far been evolved. The wider and more intelligent the public acquaintance with medical problems, discoveries and counsel, the better for the public health."

Perhaps it is fair to present one of the few items recently appearing in the lay press which would tend to discredit our position. The *McAllen Monitor*, which will be recognized as a publication in a new and rapidly growing country, always susceptible to new thought and new ideas, quite judiciously discusses the whole problem of enforcement of the Medical Practice Act. The editor makes the all too common error of concluding that this campaign is in line with those which have gone before, wherein one cult seeks to prove the contentions of the other cult to be wrong. A little thought and a little knowledge, will convince any unbiased individual this this is not true. It is true that the "homeopathic, osteopathic and eclectic schools of medicine have made their fight against the old regular school," and perhaps true that "they are here to stay," but it should be said in this connection, that they have remained on the scene of action mainly because they have mixed with their peculiar theories the necessary fundamental facts of science, upon which the practice of medicine is based. The practitioners of these so-called schools of medicine will so aver. We quote as follows:

"The chiropractor justifies his violation of Texas state law on the grounds that chiropractic is a real, helpful school of treatment of human ailments and that every freeborn individual should have the liberty to choose for himself which school of those who seek to cure human physical ills he may desire. He contends that there are many who believe themselves to have been benefitted by chiropractic treatment, and that they are in sympathy with the chiropractor's contention of their moral right to practice their profession in Texas and every state in the Union. They point to the fact that twenty-six states of the Union have framed laws under which chiropractors may be legal practitioners, and in justice to those reputable and competent individuals who desire to practice chiropractic in Texas, and in justice to the public in the way of prevention of 'quack' chiropractors, Texas should have some kind of law which will legalize the profession in the state.

"On the other hand, the State Medical Society is outspoken in its contention that there is no foundation whatever in the efficacy of chiropractic in the cure of disease. The regular schools of medicine insist that if disease is caused by the impingement of nerves through partial dislocation of the human vertebrae, the germ theory of disease, which has been amply demonstrated to be true, must be abandoned and the foundation of regular medical practice destroyed. They declare unqualifiedly that chiropractic is quackery of the most brazen sort, and in the protection of the people as individuals and in the protection of communities against the spread of disease it is necessary that the practice of the chiropractor should be discredited and the alleged profession forbidden.

"The recognized schools of medicine appeal to the patriotism of the people of Texas in the upholding of the laws of the state by refusal to countenance the chiropractor in Texas as anything but a violator of the law.

"Stating the facts as they are, the average layman of Texas is bewildered in this controversy. He recognizes the truth of the regular schools of medicine that he is fostering lawlessness in his patronage or encouragement in any way of the chiropractor. He recognizes the great work in the cure and prevention of disease that has been wrought by the regular school of medicine. He recognizes the comparatively low standard in the educational requirements of the graduates of chiropractic. He recognizes the truth of all that is contended against

the chiropractor. Yet he is possessed of that gambling inherent in mankind which prompts him to recognize that he has at least another chance in the treatment of the chiropractor after other treatment has failed to give him relief from an ailment. It is perhaps this disposition to retain as many chances as possible that gives to the practicing chiropractor in this state the encouragement which he receives in Texas and other states where his school is not recognized. Every man has a backbone, or thinks he has. He cannot fail to recognize the importance of this portion of his anatomy, and recognizing it, it is not difficult for him to acquire the conviction that it may possibly be the seat of a large portion of his physical ills. He hears of specialists in the diseases of all organs of the human body, and the chiropractor is the only backbone specialist. Why shouldn't he be permitted the services of a backbone specialist legally as well as an ear specialist or a heart specialist? Such is the reasoning of some people we have met.

"The State Medical Society has undertaken a big job in its effort to educate the masses of people on the fundamentals of treatment of human ailments. It has to contend with such truths as the chiropractor may bring to bear in his case, of superstition and prejudice and ignorance. The homeopathic, the osteopathic and the eclectic schools of medicine have made their fight against the old regular school. They are here to say. If the chiropractor should lose his fight and be ousted from Texas, what will be the next new idea of the cure of human ills, what the next straw to be thrown to engage the hope of the hopelessly afflicted?

Getting back to our subject it really *is* not the business of the medical profession to enforce the Medical Practice Act, or any other law—and, as for that, we do not know that the medical profession is trying to do this, but that the obligation rests upon the medical profession as well as upon other citizens, cannot be denied. This being true, it is certainly more incumbent upon the medical profession than it is upon any other group, to speak out in meeting and even force the issue, because of its intimate knowledge of the subject and of the harm that is being done any may be done by ignorant and vicious practitioners of medicine. Governor Smith, of New York, in his annual message to the Legislature of that State, referred to this problem in the following words:

"I renew the recommendation of a year ago that careful consideration be given to the protection of the people of the State from unlicensed and unqualified persons practicing medicine. *The cooperation of the medical profession is an essential factor in the protection of the public health, as well as in the care of the sick* A very large part of modern public health is urging people to get the advice of their physicians before serious and perhaps incurable conditions have developed. Such effort comes to naught if unqualified persons are allowed to hold themselves out as physicians. The subject is a difficult one, but the State of New York should take the lead in establishing high standards of medical practice, and providing a practicable plan for their enforcement. It is a matter of justice to qualified physicians and of protection to the public."

This pronouncement is of importance, not so much for establishing the responsibility of the medical profession for the control of the practice of medicine, which it does only incidentally, but for the reason that it gives the layman's view as to the necessity of intervention of the law in a most difficult situation. We might add, perhaps, that the legislature of the State of New York is now busily engaged in revising the Medical Practice Act and other health measures of that state, with prospects of excellent results. For one thing, the profession of that state has about agreed to the policy of annual registration of physicians, which it is thought will go a long way toward eliminating the quack. For another, it is proposed to set up a grievance committee to work under the State Board of Health, the function of which will be to establish the facts necessary to the forfeiture of license, the State Board doing the forfeiting. It is proposed, also, to forbid the use of the term "Doctor," or any abbreviation thereof to any except those licensed to practice medicine.

Perhaps, after all, the results attained by our present publicity and educational campaign will determine whether the campaign will continue. These results appear now to be overwhelmingly in our favor. But that is one thing and the cost is another, of which latter the Board of Trustees will doubtless have something to say.

Attend the Dallas Session of the A. M. A., April 19-23. President Dr. Rosser has requested each county society in the State to appoint a committee to boost attendance. It is hoped that these committees will be promptly appointed and will be active. It is not altogether that we want to impress the visiting brethren (and sistren) from other states, but we desire that our members take full advantage of this opportunity, which will probably not return for a generation or so. The A. M. A. Fellowship from Texas has all along been distressingly small. We are hopeful that this occasion will be the means of doubling or trebling the number, and we are convinced that it will. From every section of the State there come inquiries as to the procedure necessary to qualify for attending the meeting, and the hotel committee complains that it is overworked looking after Texas reservations alone. There can be no doubt but this will prove to be one of the largest and most enthusiastic meetings the American Medical Association has ever experienced.

The railroads have made the usual one and one-half fare rate on the "Certificate Plan." That is to say, and it is important that our members get it straight, full fare tickets will be purchased for the going trip and one-half

fare tickets purchased for the return trip. However, in order to secure the half-rate fare back home, the purchaser must secure a certificate from the ticket agent when he purchases his going ticket. He must ask the agent for a *Certificate*, not a receipt. This certificate must be deposited at the Registration Office upon arrival in Dallas, for the signature of the Secretary of the A. M. A., and validation by a representative of his railroad. With the signature of these two, the original purchaser may present his certificate to the ticket agent in Dallas and receive the half-fare rate back to his home, provided he desires to return the same way he came. We hope this explanation is perfectly clear, and that each prospective attendant will read it. Invariably there are several careless brethren who try to get a refund from the railroad because they failed to comply with the requirements here set out, and had to pay full fare. Tickets will be on sale April 15 to 21, so far as Texas is concerned, with return limit to and including April 27.

Dr. M. P. Stone, Medical Arts Building, Dallas, is chairman of the Hotel Committee, and all applications for hotel accommodations should be sent to him. There will be plenty of hotel room available, but it cannot be had half so easily independently as through this committee. Texas physicians should be perfectly willing to stand aside for out-of-state visitors, so far as the leading hotels are concerned. That is a matter of simple courtesy. The smaller hotels and, indeed, many of the rooming houses and much of the accommodation in private families will be just as convenient and desirable as some of the accommodations accorded by the larger hotels. We are ordinarily, in this country, suspicious of the small hotel, and particularly of the rooming house. It should be known that the local committee has so arranged matters that no member who secures accommodations through its hands will be in the least embarrassed. All will get what they pay for, no less and, quite probably, no more. *The Journal of the A. M. A.* for January 2, carried a full list of hotels, with rates and the like.

The entertainment to be accorded visitors on this occasion, will be all that the regulations permit. It will be cordial and as nearly typical of Texas as circumstances will permit. For one thing, a barbecue will be tendered by Dr. John H. Dean of Dallas. It is anticipated that 10,000 visitors will be accommodated, and preparations have been made accordingly. Last June Dr. Dean selected eighty cows with calves about six weeks old, out of a herd of 4,000. These cows were selected according to size, vigor and milk producing qualities, so as to insure a rapid, healthy growth for each calf. The eighty cows and calves were turned into a six-section pasture which had not been used, and which contained an abundance of fresh food and water, assuring the cattle of a properly selected, scientific diet. It is customary to wean calves from the mother after six months, but this plan was not followed with the calves to be used for the barbecue, in order that they might secure their mother's milk, so as to provide the best nourishment for rapid, healthful growth. A full diet was begun for the cattle in December. The calves will be killed in advance of the session and the meat prepared so as to be in the best condition for the barbecue. Mr. Tony Bazar, with a corps of able assistants, has been delegated to arrange for the service during the barbecue.

The House of Delegates will meet Monday morning. The Opening Session will be held Tuesday evening and the sections will begin work Wednesday morning, continuing through Friday. It would be impossible to present here anything like a comprehensive discussion of the scientific work to be presented during this session, but of special interest to Texas doctors will be the complete demonstration of "Some Tropical Mycoses and Their Causative Agents," by Dr. Aldo Castellani, who is coming to this country to take over the chair of Tropical Medicine in the Tulane School of Medicine, which exhibit will be included in the scientific exhibits. Texas doctors have to do quite frequently with diseases caused by the pathogenic fungi of tropical countries, because of the quite considerable travel from and to the tropics through Texas. Dr. Castellani will demonstrate the technic of isolation and of staining various mycologic specimens. The world-wide reputation of Dr. Castellani, and particularly his experience as a teacher in the London School of Tropical Medicine, makes his demonstration a matter of great importance. The opportunity to get some first hand information on such an interesting subject is not to be neglected.

Not the least important matter of interest in connection with the meeting, will be the numerous meetings and conferences of scientific bodies related to but not connected with, the American Medical Association. We have been asked to announce some of these, as follows:

The American Society of Clinical Pathologists will meet at the Baker Hotel, April 15, 16 and 17. This society is composed of laboratorians and pathologists in daily contact with the practicing physician, and who are, therefore, quite familiar with their

problems. Meetings will be open to all registrants. Drs. J. H. Black and W. H. Moursund of Dallas, constitute the local committee preparing for these meetings.

The Society for the Study of Allergy will meet on the afternoon of April 20, on the roof of the Jefferson Hotel. Those who are interested in the study of hay fever, asthma and allied conditions, will be welcome. The latest and most up-to-date studies along these lines will be discussed.

The Medical Veterans of Foreign Wars have arranged a smoker for Monday, April 19, at 8:00 p. m. The place will be announced later. The following distinguished guests will be present: Surgeon General Merritt W. Ireland of the Army, Major General Hines, Dr. Hugh Young, Dr. W. J. Mayo, Dr. Walter Lancaster, Dr. George Derby, Dr. A. T. McCormick, and others. An effort is being made to secure the presence of General Pershing. It is possible that a military band will be present, from San Antonio. It is contemplated that this will be the biggest meeting the Medical Veterans of the late war have ever held. Those interested should communicate with Dr. R. E. VanDuzen, 4105 Live Oak Street, Dallas.

Perhaps the most attractive opportunity the Dallas session of the A. M. A. will offer those who attend, is that of a tour of Mexico, which is being arranged through Mr. Frank Reedy, Dallas, representative of the Thos. Cook & Son Travel Service. Mr. Reedy, in addition to this service, is connected with other enterprises of the sort. He is, in fact, a *quasi* Government agent, both of this country and Mexico. A special train *de luxe* has been furnished for this trip, and every detail of the trip has been arranged in advance, and will be cared for by Mr. Reedy. Those who make the trip will have only to pay their fare, and then follow directions. The total cost of the trip will be, for upper berth, $300.00; lower berth, $350.00; private compartment, $387.50. These prices include everything, even the tips. The train will leave Dallas at 9:00 p. m., Friday, April 23. Saturday will be spent in Galveston and Houston; Sunday in the Rio Grande Valley; Monday in Monterey; Tuesday in San Luis Potosi; Wednesday, Guanajuato, and the next six days in Mexico City. Leaving Mexico City, one day each will be spent at Queretaro, Piedras Negras, Eagle Pass and San Antonio. The train will reach Dallas at 7:30 a. m., Sunday, May 9. The number of points of historical interest to be seen on this trip, and the many and varied entertainments to be given, officially and unofficially, in Mexico, may not be discussed here for lack of space. Mr. Reedy, who may be reached through the Adolphus Hotel, Dallas, will furnish the necessary details. We are interested because this is an opportunity of a life time. There won't be any "Old Mexico" a few years hence, and those of us who live on its borders, in a country so closely allied from an historical standpoint, should know more about the country than we do. Of course, our visitors will be interested, and quite probably the promoters will experience no difficulty in disposing of the available space on their special.

Changes in the Official Family.—Because of the increased allowance of Delegates to the State Medical Association of Texas, and the election of one of our delegates, Dr. E. H. Cary of Dallas, to a position on the Board of Trustees of the American Medical Association, a number of promotions and appointments have been made in the Texas delegation to the A. M. A.

It will not be necessary, we are sure, to enter into detail concerning these appointments. They are for unexpired terms, of course. The term of office of the first three delegates will expire during our annual session in May, and that of the next three will expire during the annual session of the following year. The list follows:

Delegate—Dr. J. W. Burns, Cuero.
Alternate—Dr. Joe Dildy, Brownwood.
Delegate—Dr. A. C. Scott, Temple.
Alternate—Dr. R. W. Knox, Houston.
Delegate—Dr. Thos. Dorbandt, San Antonio.
Alternate—Dr. J. E. Thompson, Galveston.
Delegate—Dr. Holman Taylor, Fort Worth.
Alternate—Dr. D. R. Venable, Fort Worth.
Delegate—Dr. S. P. Rice, Marlin.
Alternate—Dr. W. D. Jones, Dallas.
Delegate—Dr. G. B. Foscue, Waco.
Alternate—Dr. I. L. McGlasson, San Antonio.

Any of our members who may desire any matters brought to the attention of the House of Delegates of the American Medical Association, should correspond with one or more of the delegates above mentioned. While it is a requirement of the House of Delegates that important matters having to do with policy of the Association, be brought to the attention of the Secretary of the Association, and through him to the members of the House of Delegates, sixty days in advance of the annual session, it nevertheless is possible to secure consideration of matters of real importance, even on the spur of the moment. The House of Delegates of our national body is an extremely busy aggregation during the several days of the annual session, and must conserve its time and its opportunities for service. Unimportant matters should not come to this body direct, but should pass through constituent state associations.

Our Own State Meeting should not be forgotten in our enthusiasm over the meeting of the American Medical Association. The two have been placed sufficiently far apart to insure against conflict, to the extent that such insurance is possible. We have confidence that notwithstanding the large number of our members who will visit the annual session of the A. M. A., there will be at least the usual attendance on our own session. Our faith in this particular is demonstrated in the fact of our badge order, which is exactly as heretofore, as to the number of badges ordered.

The railroads have given us the same one and one-half fare round trip rates heretofore given, and the best selling dates we have ever had. Tickets may be bought as early as May 22, and will thereafter be sold each day until and including May 26. The return limit will enable those who desire to do so, to attend the Monday meetings, and even the Sunday public health lectures, except from the extreme northern and northwestern sections of the State. The "Identification Certificate" plan will be used by us, in contradistinction to the "Certificate" plan used by the American Medical Association for the Dallas meeting. That is to say, members who expect to attend the Houston meeting should secure identification certificates from the secretaries of their respective societies, or the Secretary of the State Medical Association, before purchasing tickets. The presentation of one of these identification certificates to any ticket agent in the State will secure the privilege of purchasing round trip tickets for one and one-half fare each, for members of their respective families and dependents.

We are informed by section officers, that the scientific programs bid fair to reach the limits allowed. The number of offers of papers already received insures a fair range of selection. The Council on Scientific Work is in active coöperation with section officers, and while it is not possible to attain the full degree of control contemplated by our By-Laws, thus early in the game, good results will accrue in time to be evident during this annual session.

The entertainment features of the meeting will be, as always is the case in Houston, highly satisfactory. The only difficulty we expect in this regard, is that of keeping the entertainment features within bounds. The program, in full, for this session, will appear in the April JOURNAL. It will be remembered that our program once published may be changed only by action of a general session of the Association.

Local Committees, Houston Session.—The General Arrangement Committee for the next annual Session, to be held in Houston, May 25, 26, 27, has furnished us with the personnel of local committees, which we publish herewith. Any member interested in the work of any of these committees, should correspond with the appropriate chairman without delay. The list follows:

Committee on Arrangements.—Dr. E. W. Bertner, Chairman; Dr. Wallace Ralston, Vice-Chairman; Drs. F. S. Glover, Chas. C. Green, Robert Johnson, J. H. Graves, J. M. Greenwood and J. C. Michael.

Committee on Reception.—Dr. J. H. Foster, Chairman; Drs. Frank King, Ghent Graves, E. H. Lancaster, R. W. Knox, J. W. Scott and J. L. Taylor, with all members of the society not on other committees.

Committee on Clinics.—Dr. B. F. Smith Chairman; Drs. N. W. Allen, J. E. Clark, Gavin Hamilton, I. E. Pritchett and Sidney Israel.

Committee on Lantern.—Dr. G. C. Lechinger, Chairman; Drs. A. S. Holley, W. G. McDeed, R. K. McHenry and B. T. Van Zandt.

Committee on Finance.—Dr. W. G. Priester, Chairman; Drs. A. P. Howard, J. E. Hodges, T. Freundlich, P. H. Scardino, R. L. Bradley, C. M. Aves, F. L. Barnes, A. E. Greer, E. F. Robbins and L. J. Logue.

Committee on Halls.—Dr. F. R. Lummis, Chairman; Drs. J. D. Duckett, Herman Johnson, Louis Daily and Carl B. Young.

Committee on Public Lectures.—Dr. A. H. Flickwir, Chairman; Drs. W. M. Brumby, Jas. P. Westmoreland, W. W. Coulter, W. M. Wier and L. L. Handley.

Committee on Exhibits.—Dr. H. L. D. Kirkham, Chairman; Drs. J. H. Agnew, J. R. Bost, S. H. Moore and W. O. Williams.

Committee on Publicity.—Dr. O. L. Norsworthy, Chairman; Mr. Robert Jolley, Secretary; Drs. J. H. Florence, F. J. Slataper, E. B. King and E. F. Robbins.

Committee on Women Physicians.—Dr. Ray Daily, Chairman; Drs. Martha A. Wood, Norma Elles Israel, Elva Wright, E. L. Heard and Clara K. Duncan.

Committee on Hotels.—Dr. J. H. Graves, Chairman; Drs. J. C. Ellis, Sidney Israel, M. A. Gant and J. M. O'Farrell.

Committee on Alumni Banquets.—Dr. Robert Johnson, Chairman; Drs. C. E. Bruhl, E. M. Arnold, F. H. Kilgore, M. J. Taylor and M. L. Brenner.

Committee on Entertainment—Dr. J. Allen Kyle, Chairman; Drs. C. C. Cody, Joseph Mullen, C. U. Patterson, C. S. Red and E. M. Armstrong.

Committee on Golf.—Dr. C. C. Green, Chairman; Drs. E. F. Cooke, C. D. Creviston, R. M. Hargrove, C. P. Harris, L. J. Logue, W. E. Ramsey, T. A. Dickson, Palmer Archer, H. L. D. Kirkham and E. F. Robbins.

Committee on Transportation—Dr. E. L. Goar, Chairman; Drs. P. L. Denman, M. D. Levy, Jas. E. Park, E. H. Lancaster, J. H. Turner, F. O. Calloway, Wm. Lapat, Henry Haden and M. L. O'Banion.

Committee on Ladies' Entertainment (to meet with Harris County Auxiliary).—Dr. Roy D. Wilson, Chairman; Drs. T. A. Dickson, S. A. Foote, S. M. Lister and L. W. Raney.

Dues Have Been Due Two Months now, and there are just exactly 795 paid up members at this writing (March 1). That is a long way from the usual 3,700 and some odd. We hope the balance will come in without delay. The office force cannot handle the business of the Association with the degree of efficiency desired, when the great bulk of the dues are held until the last moment. Incidentally, the State Association draws interest on daily balances in the bank, which is an item of no small importance each year. We doubt whether any county society draws interest on its deposits. This Association belongs to its members, and anything that will save money or make money for it, is to be considered.

County secretaries are doubtless doing their levelest best in the matter of collecting dues. Just why a member should cuss the county society secretary and cause him the unnecessary trouble of calling again, passes our understanding. It is purely a matter of psychology, of course, but it seems so unnecessary. And, getting down to practical fact, the worm sometimes turns. Not that we desire to compare the long-suffering secretary to a worm, but we have heard it said, somewhere, that the worm turns, and we know it to be a fact that it is with the greatest difficulty that a society can retain the services of a secretary for more than one or two terms, in spite of the fact that it is good policy to have an experienced secretary on the job all the time.

County secretaries must file their annual reports April 1. All who are not recorded as members at that time will be necessarily recorded as nonmembers, and should any of those who are definitely determined to be nonmembers happen to have malpractice suits filed against them for incidents occurring during this time, the State Association will not be able to extend the privileges of medical defense.

Another and quite an important matter in this connection, is the fact that the annual session of the American Medical Association is being held in Texas this year, which is the golden opportunity for many of us who cannot afford to travel far and wide in order to attend these sessions. Such a thing will not happen again, in all probability, during the lifetime of most of us. No one can register at the Dallas meeting, who has not qualified as a "Fellow" of that organization. No one can be a Fellow of the A. M. A. who is not a paid up member of his State Association. Fellowship in the A. M. A. includes *The Journal of the A. M. A.*, and costs only $5.00. *The Journal* itself is worth much more than that. It is worth while to qualify now in order that the benefits of this publication may be secured without delay, but it will be possible to qualify as a Fellow, and therefore register for the annual session, after reaching Dallas, provided membership in the State Association has in the meantime been paid to the State Secretary. The state membership list will be on file at the Registration Office.

Pauperizing the Veteran at the Expense of the Medical Profession.—At the present time the Federal Government very properly takes care of the medical needs and, under certain very clearly set out conditions, the physical needs of veterans of the World War in particular, and of the other wars in general, who have suffered in these particulars as the result of their war experiences. It now treats at public expense diseases and injuries having no relation to any government service, military or otherwise. Traveling expenses to and from hospitals are also paid. No attention is given the financial status of the recipient of this bounty, except to the extent necessary to establish priority of treatment where facilities are not adequate. The only requirement is that the applicant must prove that he is sick or has been injured. He must abandon his home physician and the hospitals and facilities for treatment in his home town, and enter a government hospital, there to be treated by subsidized government physicians.

During the fiscal year ending June 30, 1925, 13,243 persons were thus treated, *without regard to the nature and origin of their disabilities,* be it remembered. This number represents 17 per cent of the total number of patients entered in government hospitals during that time. It is estimated that the direct cost of handling these patients was approximately $5,000,000, which estimate does not include interest and depreciation in the large and costly hospital plants used, traveling expenses and the overhead of administering the service. It will be borne in mind, also, that this was the first year of service rendered under the law establishing this particular form of communistic medicine. It is easy to understand that when the system becomes generally known and the veteran public comes to appreciate the opportunities it thus has to get a little bit more than its share of governmental largess, the figures will increase by leaps and bounds. Indeed, in view of the statement of President Dr. Haggard, made at Atlantic City last year, that one hospital within his knowledge had, since this law became operative, increased its facilities from fifty beds to 325 beds, and was at the time running at full capacity, we may reasonably expect that large and thriving

hospitals will be established throughout the country, so that no veteran of any war need bother about spending money for medical or hospital service, except for the needs of his family. And, thinking back over the development of this character of legislation, it is easy to conclude that facilities will eventually be provided for the dependents and families of veterans, even to the third and fourth degree of consanguinity, and everything will be lovely—except for the poor medical man, who must bear the brunt of the burden in deprivation of this and perhaps other channels through which he might expect to keep himself fit for practice, or else go into government service, perhaps under an unattractive salary and undesirable working conditions.

All of this in the name of patriotism and in support of a very sadly misconstrued obligation! Why, indeed, should the government feel itself bound to supply medical service for veterans, covering conditions not incident to their service, any more than clothing, or food, or shelter? We can easily understand why the government would feel obligated to hospitalize and treat soldiers who are suffering because of their service, and at the same time furnish food and clothing and housing for them, but to go afield and say that because a veteran served his country in time of need he should have medical service and no other sort, is straining a point. In our opinion, this sort of legislation is the result of ignorance as to the real obligation of the government, or an effort to play politics. It is well understood that the medical profession is so meek and so desirous of avoiding publicity that it will not say or do much in regard to such socialistic endeavors pertaining to their profession, whereas the same effort in the matter of providing food clothing and shelter would bring down upon the guilty law-makers such a concentration of condemnation that re-election to office would be an impossibility.

The answer is, of course, that each doctor in the United States should write to his congressman, requesting that this sort of legislation be frowned upon and that the government exercise a bit more care in determining what its real obligations are to those who have served in its Army during any of its wars. As for that, there is now legislation pending that would bring into the fold all sorts and conditions of persons, who served in civilian occupations, some of them by way of financial and economic promotion, including draft boards, factory workers (which would seem to include Mr. Dempsey), the Red Cross, Knights of Columbus, Salvation Army, Y. M. C. A., and the like.

We believe doctors made as many sacrifices as any other group of our people during the last and all other wars. We believe, also, that doctors are as patriotic now and as self-sacrificing as any. We are sure, being a veteran of two and one-half wars, ourself, notwithstanding our service has not been in the Medical Corps, that we feel the keenest sort of sympathy for the ex-service man, but no stretch of our well known good will and sympathetic reaction to distress, can lead us to conclude that our government should expend the multiplied millions of dollars this legislation will call for, in extending medical or any other sort of service to veterans, simply because they are veterans, and then move over and make room for all of those who had to do in the remotest particular with our last war, or any of them.

This is one of the most pernicious forms of state medicine that we have encountered in this country. It is a good beginning, from the viewpoint of the socialist. It is bad from the viewpoint of the medical profession and the public generally, unless, indeed, we agree that socialism is the solution of modern ills. It really does not require any argument to convince an intelligent physician that the close personal touch of a physician with his patient, on a volunteer basis, is the salvation of medical service, and it should not be hard to convince the thinking public that anything which tends to reduce the practice of medicine to a routine, hired-hand status, will be bad for that part of the public which must rely on the physician for the prevention and cure of disease. When the practice of medicine becomes so unattractive that the best class of young men and women, coming to the parting of the educational ways, refuse to take it up as a life work, ignorance and quackery will, indeed, become the rule very soon if not at once.

A part of the answer to this grave question lies in the activities of veterans' organizations, such as the American Legion. A problem of this sort coming up for discussion in any meeting of the veterans, will be decided on sentiment and not on reason, unless there is some one present who can give the inside facts and point to certain developments. If anybody can do this, the doctor can. It is a sad commentary that generally he cannot, but upon him we must rely, in the main, even so. We recall the difficulties we have personally experienced in inducing doctors to actively participate in the activities of the Legion, and we here and now petition and urge that every physician in the State of Texas who served during the late war, join the American Legion and among other things, use his influence in an effort to stabilize the socialistic tendency of the day,

particularly as it pertains to the medical care of the ex-service man.

The American Medical Association has unqualifiedly condemned the sort of veterans' legislation now pending, and that fact should be remembered by our members, and their congressmen should hear from them accordingly, at once. The following resolution adopted at Atlantic City last year, establishes the status of the medical profession in this particular:

"*Resolved*, That the American Medical Association, through its accredited representatives and with the assistance of the accredited representatives of constituent organizations, whose coöperation is solicited, put forth every honorable effort to secure an amendment to the Veterans' Act of 1924, which will do away with federal free medical and surgical services and care for all veterans except those whose disabilities have been caused by war service for our country, or at least restrict free medical and surgical services and care to those veterans who are unable to pay for the same."

The Sheppard-Towner Act Again to the Fore.—Our leaders are familiar, we are sure, with the Sheppard-Towner Act, taking over in the name of the Federal Government much of the prerogatives and duties of the State pertaining to the problem of childbirth. It will be recalled that this choice bit of socialism was forced upon the country over the protest of the medical profession some several years ago; it became a law in the face of the established policy of this country to leave such matters as that to the states, and in spite of the widespread belief that the matter of Federal aid for state projects, either as an inducement or as a suborning action, was a bad thing and should be discontinued, except in those particulars where the Federal Government had a direct and important interest.

The original act represented the most pernicious sort of socialism possible. The protest of the medical profession and a few thoughtful statesmen, reduced the bill to a very decent, modified sort of socialism, over which we could not protest very vociferously, notwithstanding we felt that the law was a response to sentiment and not to reason. Indeed, in this connection, the figures advanced by the proponents of the measure tending to show that the medical profession has been perniciously ignorant and neglectful in its maternity service, have been disputed by the highest authorities on such subjects in this country. The proponents of the measure were called upon to substantiate their statistics, and if they have ever done so we have not heard of it. The law has not been justified, except to the extent that it has afforded a sop to the states, which sop, incidentally, has been very helpful to us in Texas, in the absence of adequate public health appropriations otherwise.

This Act is due to expire by its own limitations, in 1927. It is now proposed, very timely from a political standpoint, to continue the Act for another two years, carrying out the tactics that have heretofore been so successful in putting this measure over. A bill was introduced in the House of Representatives January 13, a committee hearing granted on the following day, when the state directors of the Act from over the country were present in Washington, and the hearing closed on the same day. If any opponents of the measure were notified, we have not heard of it, and we have made inquiries. Incidentally, proponents of the measure were notified of the hearing prior to the introduction of the measure.

One of our Senators, Senator Morris Sheppard, is joint author of the original bill, and one of our Representatives, Honorable Sam Rayburn, is a member of the Committee on Interstate and Foreign Commerce of the House, which committee has had charge of the measure. Whether these two gentlemen are very keenly interested we do not know, but it won't hurt them to understand that the medical profession of Texas is tired of this eternal effort to socialize medicine and rob the doctor of his opportunity to serve his people in the only way such service may satisfactorily be rendered. That, if nothing more. Of course, this is only a part of the reason for opposing such legislation. When the practice of medicine becomes so hedged in by subsidized agencies that it will cease to attract our most intellectual young people, it will drop to the level of those who may be induced to enter the same, and history shows what can be done and what will be done in that respect if this turns out to be true.

Our readers will remember how difficult it has been for us to secure a high professional and ethical standard for our medical colleges and anything like a decent standard for our medical practice acts. The practice of honest-to-God medicine is hard at best, and not by any means so highly remunerative as it should be. Doctors are today, unfortunately, paying almost as much attention to finding easy channels as they are to serving their people, which is a bad state of affairs. Wholesome appreciation of the medical profession would change this condition right now. The people do not know what they are doing when they place the practice of medicine on a strict basis of remuneration. The doctor should not be made to feel that he is a hired hand. We are not inconsistent in this statement. The truth is, the doctor should practice medicine because of his desire to

serve, but inevitably his desire to serve will in general be based upon the sense of appreciation of those served; and in this day and time appreciation has proven most satisfactory in terms of the "Honorarium." It is human nature to feel that the laborer is worthy of his hire, and that the appreciative servant should be well kept.

The most outstanding factor in this particular piece of legislation, is the women's vote. We feel that the average woman does not stand for federalizing obstetrical service, preventive, curative, or any other sort, if she knows the facts. Sentiment is one thing and reason is another. Fact plays a most important role, in connection with either one, and should be ascertained before decision is made in such an important matter as this.

We have participated in this Federal largess. We have kept hands off because our health department needed the money. We have been willing to exchange our birthright for this mess of pottage. Perhaps our State government can go it alone now, and our representatives in Congress should be so informed.

"Better Obstetrics" Will be Discussed before the county and district societies throughout the United States, if the proposed program of the Joint Committee representing the Child Welfare Association, the American Gynecological Society and the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, is carried out. A state chairman has been appointed in each state, who upon request will furnish the secretaries of county and district societies with information concerning the work of the committee, and also with the names of speakers who are prepared to discuss the subject of "Maternal Welfare," and "Infant Welfare," which latter is so intimately related to the former as to be but a phase of the same important subject. The Texas Chairman is Dr. Calvin R. Hannah of Dallas, who will be glad to correspond with any who are interested in this problem.

The responsibility for the vast majority of cases of puerperal sepsis and eclampsia rests largely, in the last analysis, with the medical profession. According to Dr. George C. Mosher of Kansas City, Chairman of the Committee on Maternal Welfare of the American Association of Obstetricians, the case against the medical profession may be stated as follows:

"The causes on the part of the profession, of maternal morbidity and mortality, are:

"(a) Insufficient teaching of medical students in the colleges.

"(b) Inadequate preparation of students in medicine; generally their own fault, forgetting all didactic instruction as soon as they graduate.

"(c) Failure of physicians in charge of maternity cases to apply their knowledge to the work in hand."

And the case against the laity is stated by the same authority in these words:

"On the part of the laity, the contributing causes are given as:

"(a) The hopeless ignorance of women in the simplest truths of life.

"(b) Abortion, criminal or preventable—women have confessed to 12 and 15 inductions without a blush. A world-wide education without mincing words is demanded in this.

"(c) Neglect of early consultation with medical men.

"(d) Listening to 'ole mammy's' superstitions and following advice by faddists and cultists, regarding child birth; usually harmful or disastrous.

"(e) Indiscretion regarding exercise, diet, indulgence in questionable pleasures, fast living, drinking, smoking, and other pastimes.

"(f) Ignoring diseases which, if taken in time, might have been cured or corrected."

It has been estimated by Dr. W. S. Rankin, Health Officer of North Carolina, that 750,000 mothers are delivered by midwives annually in the United States. This is about one-third of the total yearly number of confinement cases in this country. Probably five mothers are neglected to every one that receives any medical supervision during pregnancy. While we do not subscribe to the gloomy statistics which appeared about the time that the Sheppard-Towner Maternity Act was being engineered through the legislative halls at Washington, which statistics placed the United States as fourteenth from the top in maternity welfare, in a list of the seventeen principal civilized nations, and seventh from the top in infant welfare, conditions in this country are undoubtedly bad enough and call emphatically for energetic and intelligent action on the part of both the medical profession and the public. The problem is essentially one of education. The medical profession is in need of re-education along these lines. When doctors have become duly converted themselves, they must then engage in personal work and spread the gospel of maternity and infant welfare in their own communities.

It is pitiful how little the average woman knows about "her most sacred function, that of motherhood." Whether pregnancy and labor are physiological or pathological conditions may be an academic discussion, but it is certainly true that, due largely to the comparatively inactive life which society has prescribed for the woman of today, she has become less and less able to meet the stress that the pregnant state throws upon her metabolism. Dr. Joseph B. DeLee estimates that 25,000 American women lose their lives annually, as a direct or indirect result of childbearing, in addition to the thousands

who are forced to seek relief in hospitals for injuries or diseases incident to pregnancy.

When it is realized that probably 80 per cent of these fatalities are preventable, then, indeed, these deaths become a reproach to our Nation, which should rightly be expected to take the lead in reducing the morbidity of pregnancy. Again we say, the solution to the problem lies in one word—EDUCATION! Are *you* willing to do *your* part? The challenge is a magnificent one.

Dental Health Week in Texas.—The dentists of Texas, through the Texas State Dental Society, are actively engaged in a campaign of publicity, which has its culmination, we presume, in the so-called Dental Health Week, March 15-20. We commend the dentists most highly on their enterprise and commend the effort most heartily to the balance of the medical profession.

The important part played by the mouth and teeth in the cause of disease, has now for some years been recognized, but too much of the propaganda in the interest of prophylaxis has devolved upon the practicing physician. While it is true that the practicing physician has most to do with the results of dental disturbances, the dentists are active upon the threshold and the responsibility is primarily theirs. We expect to be continuously referring our patients to dentists for diagnosis and treatment, in a great variety of cases believed to have their origin in infected teeth and the like, but we are derelict in our duty, no doubt, in that we do not refer our patients to these gentlemen before they get sick. In other words, in the presence of an epidemic of smallpox, the doctor would not hesitate to advise his patient to be vaccinated, whether or not he himself does that sort of work. In the presence of so many physical disabilities and illnesses caused by infected teeth why, then, should not the doctor be active in seeing that teeth are fixed before illness intervenes, if he has the opportunity to do so?

It is the purpose of the dentists now, to take steps in every community in which they are practicing, to see that the public are made aware of the dangers of dental neglect. This will be done through public programs, fostered by dentists, physicians, teachers, nurses, and other intelligent persons interested in the general subject of mouth hygiene. We trust the medical profession will not neglect to do its part.

Clean-Up Week under the auspices of the State Board of Health, will be held this year March 28 to April 3. We have before referred to this plan of attracting the attention of the public to the necessity of cleaning its house at least occasionally. It is a splendid idea and we desire to bring it as forcefully as possible to the attention of the medical profession of the State. We feel that our readers will promptly rally to the support of their local health authorities in carrying out the program set out for this particular week.

Of course, during the entire week an effort will be made to study all health problems, much as is the case in the well-known church revivals. If we remember correctly, in the latter there is a mourners bench, and there are lay workers who go out and induce the irreligious to take the first step. The idea might with profit be applied to the problem of public health, and Health Week is a good time to start.

Congratulating the Taylor Instrument Company.—It is seldom that we take occasion to refer in our reading pages to any of our advertisers. We would regret to have it thought of us that we would resort to the catch-penny practices of some publications, of giving reading notices in exchange for advertising contracts, fulsome in proportion to the size of the contract. As a matter of fact, the Taylor Instrument Company does not know that we have them in mind.

We have just noticed the proud announcement of this concern, that it has reached its Seventh-fifth anniversary. It is no small thing, notwithstanding it is primarily a matter of money-making, to have served the interests this company has served for this extended period of time. Time was when a service of this sort meant a great deal more than it does now, because of its rarity. Piggly wiggly merchandising has accomplished a great deal for us poor folks, but it has certainly helped to deprive us of dependable, high-class merchandise. Not that the particular concern, the name of which we take in vain here, does not handle good goods, nor even that the cut rate stores do not handle goods that are worth the money; we merely mean to say that competition while it is the life of trade is also the death of trade, and that a service to the medical profession which continues through a good many years, with ever increasing value, is to be commented upon. Undoubtedly, "quality" and "service" are slogans that may be well emphasized. As surely as virtue is its own reward, service will insure satisfaction.

GETTA GREEN CARD

ORIGINAL ARTICLES

PHYSICAL EDUCATION IN SCHOOLS IN RELATION TO THE MEDICAL PROFESSION.*

BY

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The problem of the school is to prepare the child for good, intelligent leadership; to give to each the opportunity to develop his efficiency as determined by heredity, environment and education. We should get rid of the sickly sentiment of everyone being born equal, and begin to enlighten people so that they may assist in self-determination. Kellogg in his book, "Mind and Heredity," states this thought concretely when he says: "The aim of democratic education should be to give every child an opportunity to make the most of its inherent possibilities. It is equality of opportunity to become the most you can that the successful democracy must be based on."

In order that we may arrive at a proper fundamental conception of what physical education is, and its relation to the medical profession, I will give you a brief history of the various physical education cults and creeds, from which have grown our present conceptions of physical education.

We have, from the beginning of civilized society, felt the need for the education of its members, physically. There was a brief time in the history of the world, when aceticism in the early Christian church was rampant, that physical weakness was stressed rather than physical perfection. The body was subjugated in order to attain spiritual power. Methods of physical training entered into the life of the oriental peoples, even before the wonderful results produced by the Greeks. All of these systems of physical training were based on high ideals of physical perfection. You know the history of physical education and training during the Roman Empire. In the fifteenth and sixteenth centuries, at the time of the Renaissance and the Magna Charta, the revival of learning and education made possible some newer conceptions of physical education. We have as a result of the Renaissance and the period that followed, a new demand which was typified by the two best know systems, the German and the Swedish. These two systems were brought over to America as a direct result of immigration. They were fostered in America, and particularly in the United States, by old students of the same.

Jahn of Germany and Ling, of Sweden, are the two most outstanding characters in the achievements and results of physical education in their respective countries. Their enthusiastic followers brought to this country these forms. We might well consider that in the period of time from the Renaissance of learning until the early nineteenth century, most physical education forms were developed by patriotic people who, however, did not make a scientific study of the children. They were prone to ignore all of the educational results of other teachers. The two best known systems of physical education are the German and Swedish. The history of each system is undoubtedly very well known, and I will take just a moment to describe the outstanding characteristics of each.

The German system was unscientific, because it did not take into consideration, in its physical education scheme, all of the necessary factors, such as the social needs of the individual; the study of heredity and all of the essential biological facts. It was primarily used to create love for the fatherland, and because of the above, its foundation was not correct, and so, of course, it could not live throughout the years.

The Swedish system, which most people claim is substantially scientifically correct, was based on a knowledge of physiology and anatomy up to the time it came into effect. Thirty years after Ling died, it was found that the system was not based on scientific principles, because of the new discoveries in physiology that were brought into the general body of scientific knowledge.

It is interesting to note that in both systems of physical education, the thing that was stressed was the creation of a good muscular development. There was no real scientific knowledge of metabolism, physiology and hygiene, or of the influence of heredity, that, thanks to the medical profession, is available today for the use of the physical educator. In other words, the physical education systems were conceived as formal and anatomical systems of muscular development. Much of the above conception of physical education is in a more enjoyable way and with an understanding that is deep and true, brought to us through the researches of physiologists and psychologists.

Most physical education instructors and the majority of the people of the United States, think of physical education in terms of athletics, calesthenics, etc., and physical education *per se* is none of the above.

Man's environment, in this day of advanced and complex living, is practically all artificial. When living naturally, man dwelt in caves and out-of-doors, walked long dis-

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tances, swam rivers, depended on his natural strength of body for his food and for the defense of his very life. Now man, by the keenness of his intellect and his advancement in all matters pertaining to the business of living, does not have to depend on his physical self so much. He has houses in which to live, kept at an even temperature at all times. He does not have to walk long distances. His food is brought to his door every morning. He is crowded into large centers of population. Consequently, his physical effort for his own maintenance has been gradually lessened.

By reason of man-made city life he turns night into day; rest is not taken properly, and as a result of this lack of natural life and natural fundamental ways of living, he has fallen heir to a number of bad physical defects. Man has also become as a result of "unnatural conditions" sheerily, physically lazy.

As a result of our population in the cities becoming largely industrial, and with our complex and hurried way of economic life, come many occupational diseases and various distortions of the human body. Day in and day out for periods of years man has done one mechanical operation at one machine, overemphasizing certain groups of muscles to the detriment and atrophy of others. We have the "Stoop Shouldered Bookkeeper Type," the "Lopsided Mechanic Type," who has one shoulder lower than the other, and the "Anemic Shop Worker," who for years perhaps has never been out, for long periods of time, in God's great out-of-doors. Eyes that were meant to gaze at objects at a distance and at the restful green and brown tones of earth are now confronted with white lights, white pavements, close up houses, fast moving automobiles and the intolerable, flickering, fast moving picture projected on the screen. All this strain extends over long periods of time. Consequently, there is born out of all this complex way of living a number of agencies for the conservation of human energy, eyesight and life. The great masses are beginning to be brought back to a more sane and natural way of living even under these unnatural handicaps. This is being done primarily by the teaching of physical education, hygiene and health.

Realizing that we must do something to make life more worth while, more physically perfect and more nearly like the fundamental, biologically correct way of existence, we are teaching humanity, through physical education, how to live. Therefore, the teaching of proper health habits, etc., is the most important single item in any scheme of physical education.

Physical education is not merely a system of calisthenics, apparatus and gymnasium work, nor is it a system of athletics. All the above items are necessary and are of great value in building up a fine physique. However, without proper inspection, correction of defects and the inculcation of correct health habits in the individual, any scheme of physical education must fail. We must make physical education likeable and desirable in order to form correct health habits in youth.

As we go into the study of the value of motor education as an essential part of the education of every child, we find that it is necessary, both pedagogically and hygienically. It has now been determined by educators that physical education is no longer a minor phase of the whole scheme.

What influences human growth and development physically and mentally? It is a well accepted fact that no one will deny, that the environment of the child, next to its fundamental inherited characteristics, is the most important factor in its development toward physical, mental and moral efficiency. "All that heredity needs, which is willed to a child, is the proper surroundings in which to grow. We plant a tree in the proper soil, cultivate it thoroughly and work with it carefully and give that tree the opportunity to expand and grow to the limit of its possibilities according to its kind. So it is with the human body which is so much like the growth of trees and shrubbery, plants and animals in nature."

"The development of the child's body, mind, spirit and soul comes naturally in a sequence. The mind and soul of man grew and developed only in proportion as his environment, etc., made and stimulated his motor faculties."

The growth of civilization has been from that of the animal stage through that of savage man, then through the primitive stage to that of the first social coöperative existence. Then there comes a period in civilization of marvelous mental growth, when advancement was made in all the arts and sciences, or as Hermann in his outline on "Physical Education" puts it: "Man's brain had acquired through innumerable motor experiences, a capacity for accumulating and for logical ordering of divers facts. Man, the builder, became man, the thinker."

This was the sequence of man's evolution and so must be the evolution of the child. Leave out any item of the child's development and you stunt and inhibit growth. Dr. G. Stanley Hall says, "The motor areas are closely related and largely identical with the psychic, and muscle culture develops brain

centers as nothing else yet demonstrable does. Muscles are the vehicles of habituation, imitation, obedience, and of character, manners and customs. For the young, motor education is a cardinal principle. We have need of a complete physical education scheme to replace the backyard, alley and street playgrounds which are now all unsafe. Our houses are crowded. Our stairways, halls, and narrow alleyways are all that is left. Civilization has tended to lessen the playground space that formerly was allotted to childhood."

It then becomes encumbent upon us to state what our idea of physical education is. Physical education should be maintained in its primary purpose for the formation of correct health habits. Its purpose should be to promote, by means of exercise, recreation and close personal inspection and education by class room instruction, the highest type of physical, mental, and moral efficiency. It should seek to correct, surgically and through medical corrective exercise, in the early youth, all of the faults of body structure and body disease possible, so as to eliminate the greatest number of disease conditions that make for bodily infirmities in after years. Physical education should teach correct posture, correct breathing, personal hygiene, playground work and gymnastics, and physiology and hygiene with all of its allied subjects. It should seek as one of its objects, the development of proper discipline, proper attitudes toward the teachers, school, community life, etc. It should develop, in the greatest measure possible, group consciousness and create by all of the above means, correct living and health habits.

The above, then, is the newer conception of physical education toward which we are striving, and by which we are going to arrive at the fullest possible program in the development of mankind physically. You will note that it discards the old ideas of Jahn and Ling, and gets down to the fundamentals of human existence, and begins at the bottom basically and scientifically, and builds upward.

If my conception of the objects of an ideal physical education department is correct, then it must needs follow that we must seek for the highest type of authority on the above problems. I believe that any reasonable person who has studied the field of physical education and the field of science, in relation to the human body, its functions, development, etc., will have to agree that the great body of knowledge relative to these subjects lies in the medical profession.

After the above newer needs were felt and developed in physical education, and the new form came into being, we were forced, in all lines of education, to call upon the medical profession for a number of our ideas. In fact, I feel that the newer form of physical education was introduced into this era by the influence, consciously or unconsciously, of the medical profession.

Let us consider for a moment who in our community is best capable of advising us on physical education and health problems. Is it the minister? Is it the lawyer? Or, is it even the school teacher? I believe every right thinking man will agree that the highest type of authority on the above problems is the reputable, recognized physician. My conception, then, of an ideal system of physical education and health in its organization is based on: First, a reputable physician, either heading the system or in advisory capacity; second, competent physical diagnosis; third, competent mental diagnosis; fourth, competent nursing facilities; fifth, medical and remedial gymnastics, massages, etc., and sixth; competent gymnasium and athletic facilities.

I am sure that as you medical men go about your profession, day after day, you see many outstanding needs of physical education. Arranging these in their order, you will find: First, a need of teaching our people to be physically well. (By that I mean the necessity of teaching personal hygiene); second, the necessity of teaching our people proper dietetics; third, the necessity for teaching our people the care of the sick, sick room management, etc.; fourth, the extreme necessity of teaching our people to go to the proper sources for advice and consultation on problems of health and to do away with so much taking of patent medicines and so much improper treatment of diseases. Even in this enlightened age I have found one person prescribe for asthma, a muskrat hide, tanned with the fur on and the fur side worn next to the skin over the chest. A great amount of education is needed to lead the people from superstitious practices. I wish here to compliment the medical profession in general on its new magazine of hygiene and instruction in health matters, called *Hygeia*. I would like to see this magazine in every school and home throughout the United States.

How can physicians help the physical educator in his scheme and program of teaching health? I feel that even in small communities, the physician could be of the greatest benefit to the school system by interesting himself in the kind of health board that his city has, by finding out what courses of instruction are being given the children in problems on health and hygiene, by using his influence to have brought about

in his community, a proper physical education scheme, by giving some of his valuable time to instructing the parents of school children, and by educating the teachers of the schools on the proper attitude of teachers and parents toward the medical profession. The above should all be done in order that people will understand that a dislocated vertebra would cause death in most cases, rather than being capable of being adjusted into place; that the wearing of skins, etc., will not ward off a disease; that patent medicines of all types are usually injurious, from Peruna down (or up) to Lydia Pinkham's Pink Pills for Pale People.

I believe that the physician can be of inestimable value to the physical education profession in advising patients who come to him for the correction of fallen arches, postural defects, etc., that he could find relief through competent training in physical education and corrective gymnastics. I believe that one of the reasons for cults, such as chiropractic having such a flourishing business, is that we have not stressed, among our people, the fact that the medical profession has at its disposal and to be used in a scientific way, medical gymnastics, massage, lavage, etc. In fact, I believe that the whole field of physiotherapy in the routine practice of medicine has been neglected.

CONCLUSIONS.

1. The physician can be of inestimable value to the physical educator, by convincing the public that the problem of physical education and health belongs primarily in the elementary, graded and secondary schools of our land. If my conception of physical education is correct, then it must needs follow that it should be carried out in early youth, and not after one has reached maturity.

2. Our physicians, even in small communities, may tie up the work of health and health education, or physical education, with that of the leading physicians and surgeons.

3. The physician is the greatest source of information on teaching facts about heredity, insanity, etc. The light of science, and not maudlin sentimentality, can be spread in the community through the medium of our physicians, especially on the problems of sex and heredity, including inherited mental characteristics, etc.

4. The medical profession can assist a physical education department and be of great value in teaching fundamental facts that will benefit the physique of mankind, by spreading the gospel of common sense marriage eugenics.

5. The medical profession can be of great assistance to the school and physical education departments, in the promulgation of laws on the subject of teaching health, that will educate our children away from the use of patent medicines, nostrums, etc.

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ABSTRACT OF DISCUSSION.

Dr. T. O. Woolley, Houston: How many of you have not played fox and hounds, giving one boy 200 yards in advance, and the rest of the boys falling in yelping for dear life, crossing the valley and spring branch and circling the hill and running a half mile or more before returning to the starting place. It is difficult to see how any boy that is forced to grow to manhood on a piece of ground 50 by 100 feet, can obtain the physical strength of his immediate ancestors without the aid of physical training as taught in the schools and recreation departments. The determination is wide-spread that the public schools of the country must never in the future, as in the past, put book learning before physical fitness. Everywhere there is a demand for teachers who can teach health.

The question of health is as broad as life itself and the teacher that would teach health must not confine herself to the four walls of a classroom. Health must be taught in the schools primarily by the classroom teacher. Who is going to teach the teacher to teach health? The average teacher will waste much time teaching things that produce no health because of a lack of clear understanding of the objectives to be obtained through the health education activities. We certainly must not tell pupils that if they will obey the "Rules of the Health Game" they will never be ill, because they will become skeptical when they contract measles. In short, health must be taught by those that know.

Mr. McGlachlin (closing): I thank the doctor for his discussion. Teachers need to be taught and should show a greater interest in the physical development of the child and have a greater interest in what the medical profession is trying to teach along these lines. Their cooperation in the above program is greatly needed.

Glucose-Dextrose.—Legislation now under consideration in Congress aims to modify the interpretation of the Federal Food and Drugs Act so that food products shall not be deemed adulterated or misbranded "because of having been preserved or sweetened with an article commonly known as corn sugar, also with an article known as fruit sugar or levulose." From the standpoint of nutrition and health, no reasonable objection can be offered to this proposal. It should be emphasized that in the new pharmacopeia "glucose" connotes the syrupy substance; the pure substance such as is used for treatment of hyperglycemia following a large dose of insulin is now described under the name dextrose (sometimes called d-glucose; formerly described also under the name anhydrous glucose). This may lead to confusion, as many physicians still speak of "glucose" injections, which under the new pharmacopeia are really "dextrose" injections.—*Jour. A. M. A.*, Feb. 27, 1926.

DENTAL INFECTIONS AND TUBERCULOSIS*

BY

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LOS ANGELES, CALIFORNIA.

In considering the influence of dental infections occurring coincident with tuberculosis, I desire to review briefly the clinical history of tuberculosis as it most frequently occurs in persons in whom it is manifested clinically during adolescence and adult life.

FIG. 1. Normal peridental membrane and its relation to the cementum and alveolar process. (I) peridental membrane; (II) cementum; (III) alveolar process. Observe the irregular thickness of peridental membrane and the consequent irregular line between the cementum and the alveolar process.

FIG. 2. The relations between the teeth, peridental membrane and maxilla. Observe how the peridental membrane (I) on the one side is attached to the cementum (II) and on the other to the bone (III) in an irregular line, extending into adjacent cancellated spaces (IV). This anatomical relation favors extension of infection into the alveoli, resulting in resorption of the alveolar processes; (V) Dentin.

Primary tuberculous infection is almost universal in childhood. It becomes arrested, but produces recognizable symptoms in only a small percentage of cases. In all who are not overwhelmed by the initial infection, a degree of resistance is established.

Active tuberculosis may recur and become arrested with or without manifesting symptoms. Reactivation is frequently due to stresses. Stresses may be divided into:

General Stresses.—Unsanitary surroundings, undernourishment, anxiety, vicious habits, etc.

Mechanical Stresses. — Physical strain thrown directly upon latent foci.

Bacterial Stresses.—Involving (a) the tuberculous foci; (b) remote foci.

Frequently, mechanical and bacterial stresses co-exist; this is especially true if mechanical forces have been the earlier reactivating agency. Recovery may be interfered with by bacterial infection associated in the tissues in which the active tuberculous infection exists, and also by the existence of bacterial infection in tissues remote from the tuberculous foci. Of the latter infections, those of the peridental tissues, tonsils and nasal cavities are important.

Chronic infection of the peridental tissues[1] may be divided into intraosseous and extraosseous. From these foci metastasis may take place through either the blood stream or the lymphatic system, and thereby develop chronic disease in any tissue of the body, at a distance from the primary focus of infection.

Intraosseous infections[2] are most frequently manifest in the periapical peridental membrane, involving the tissues adjacent to the roots of the teeth as dentoalveolar abscesses (dental granuloma). Secondary foci

FIG. 3. *Intraosseous infection.* A large dento alveolar abscess (I). This had developed so insidiously that patient had experienced no local symptoms. Its existence was discovered during an examination for the cause of persistent pains about the right shoulder joint for about two weeks, not accompanied by symptoms of an acute condition. Note also the overhanging crown with the resulting *extraosseous* infection and destruction of the peridental membrane and resorption of the alveolar process to the extent that the tooth has lost about one-half of its bony support. The symptoms disappeared after extraction of the tooth and have not returned after an interval of two years.

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 6, 1925.

1. For minute anatomy and detailed pathology the reader is referred to works on anatomy and pathology. The author acknowledges courtesies extended to him by the authors and publishers of General and Dental Pathology, Endelman and Wagner, C. V. Mosby Co., St. Louis. Several of the cuts have been reproduced from this work.

2. For more detailed classification the reader is referred to works on dental pathology.

are of frequent occurrence from this source.

Extraosseous infections include chronic inflammation of the peridental membrane, alveolar process and gingiva. The later stages of this type of infection have been known as pyorrhoea alveolaris, "flow of pus from the alveolus." A more comprehensive definition which more nearly represents our present conception of the condition is:[3] "The term 'pyorrhoea alveolaris' is generally accepted as indicative of inflammatory disorders in the investing tissues of the teeth, which, if not controlled, eventually end in their exfoliation."

FIG. 4. *Extraosseous infection* showing deposits (I). There existed a slightly swollen red line along the gingival margins. Observe the resorption of the alveolar processes (II). This patient complained of progressive weakness and came for examination fearing pulmonary tuberculosis. We failed to find evidence of an active tuberculous condition, but we found a chronic myocarditis which was sufficient to account for the feeling of weakness. Her blood pressure was: recumbent, systolic 110, diastolic 70; on rising to standing, systolic 100, diastolic 85. Following treatment of the peridental condition the symptoms gradually improved and the heart, which was of the narrow "drop-heart" type, slowly approached the normal condition in function and form. These deposits are rarely located so that they are seen in the radiograph; however, they usually exist in the presence of chronic marginal gingivitis.

It is important that the causes and early signs and symptoms of this condition be recognized at the earliest possible opportunity in order that the conditions may be corrected.

Among the causes which may be mentioned are subgingival deposits (salivary and subgingival calculi), which produce mechanical irritation and develop conditions favorable for infections. Pyorrhoea is also favored by mechanical irritation due to ill-fitting dentures, fillings, etc., or by chemical irritation due to decomposition of food debris accumulated by permanent bridges, overhanging crowns, etc.

The bacterial factor becomes the most important factor in continuing the process of destruction and dissemination, metastasis.

By metastasis the bacteria become etiological factors in chronic inflammatory disorders of the tissues of the tendons, joints, blood-vessels, endocardium, myocardium, muscles, kidneys, intestinal tract, peribronchial tissues, lymph nodes, etc.

3. Dental Pathology, Endelman & Wagner, C. V. Mosby Co., St. Louis.

CONCLUSIONS.

Foci of infection of the peridental tissues should be diagnosed early.

Slight persistent swelling of the gingival margins are indicative of extraosseous infections. This condition is amenable to treatment, if recognized and treated early, and the patient saved from the chronic toxic condition incident to more extensive infection.

The *x*-ray is invaluable in the diagnosis of extraosseous and interosseous dental infections; however, it should not be relied upon exclusively. The beginning of the infected focus is microscopic in character and has existed for a comparatively long time when it can be seen in the radiograph.

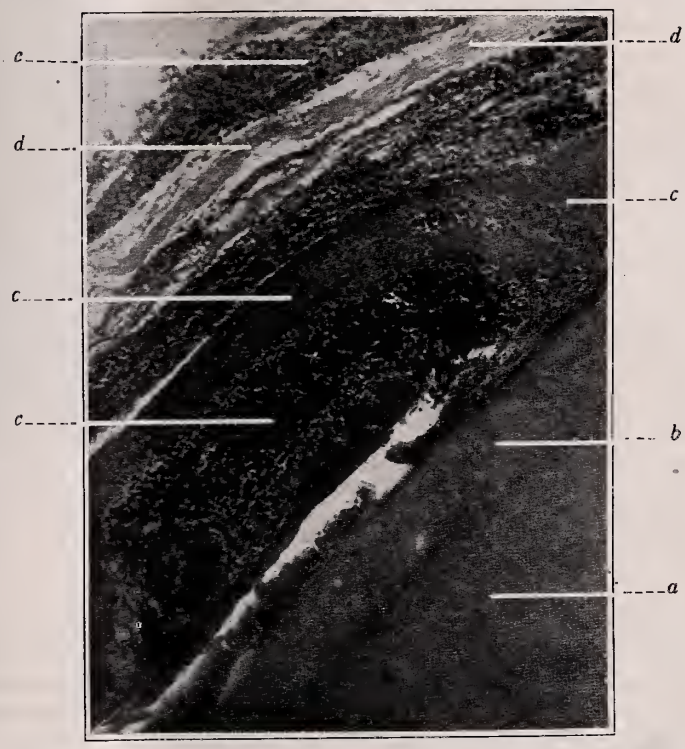

FIG. 5. Chronic inflammation of gingiva. The epithelial prolongations in the subjacent connective tissue elongate as the result of the continued low degree of irritation. The connective tissue stroma has lost its characteristic appearance and the cells and fibers which were present under normal conditions have been replaced by inflammatory cells; i. e., mononuclear wandering cells comprising mononuclear leukocytes, lymphocytes and plasma cells and polymorphynuclear leucocytes in small numbers, a, a, elongated epithelial projections; b, b, round cell infiltration. Mast cells are also to be located under the higher magnifications. (Endelman.)

Resorption of the alveolar processes, as observed in the radiograph, is evidence of extraosseous infection.

When operative procedure is necessary for relief of infections of the peridental tissues, it should be limited to small areas. The treatment of pyorrhoeal pockets previous to extractions will in many instances relieve the patient from absorption of excessive toxins incident thereto. If the infection is exten-

sive, it is safer in the beginning of treatment to treat only one or two teeth at a sitting; the interval between treatments should probably be not less than five days.

Flooding the system with bacteria or their toxins may be a determining factor in an acute exacerbation of the tuberculous condition, or of chronic myocarditis.

ABSTRACT OF DISCUSSION.

Dr. J. M. Murphy, Temple: Practically speaking, there are two types of infection about the teeth: (1) interosseous and (2) extraosseous, the former being the more severe. In fact, mouth infection should be considered from the standpoint of its effect on the general system in the same light, as that found in the sinuses, kidneys, lungs, or anywhere else in the body. In operative procedures, special attention should be paid to cases that have infection in the mouth, whether this pathology be concealed or apparent. As a rule, patients who are suffering from a referred effect of focal infection have a lowered resistance and will go into shock more quickly than a normal individual will. So in extraction work no hard and fast rules can be laid down as to how many teeth should be removed at one time. The rapidity of the procedure depends upon the condition of the individual patient and the degree, and virulence of the infection. In those patients who have a very low vital resistance, one should begin by extracting only one or two teeth the first sitting, watching the reaction from this, and being guided accordingly at each subsequent sitting as to the number of teeth to extract. The extent of an extraction operation should be governed solely by the condition of the patient.

Dr. C. T. Stone, Galveston: In recommending the extraction of teeth, I place the patients in three classifications: (1) Teeth showing abscesses at the roots should be removed regardless of symptoms; (2), dead teeth presenting no local or constitutional symptoms may be left in but should be closely watched, and (3), when local or constitutional symptoms are present, remove all dead teeth as well as the abscessed ones.

FIG. 6. Gingivitis, chronic, advanced stage, the infection is progressing toward the peridental membrane a, dentin; b, cementum; c, c, stratified squamous epithelium lining subgingival space; d, d, fibers of peridental membrane in the gingiva; e, e, round cell infiltration. (Endelman.) Illustrates nature's effort to limit extension of infection.

MUNICIPAL SANITATION.*

BY

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Public sanitation, like many other governmental activities, is expanding with astonishing rapidity. Indeed, it is a part of the general evolutionary progress of community life during the past century. We are scarcely 70 years away from the cesspool cellars of London, and the devastating cholera epidemic in Hamburg occurred only 33 years ago. No one now fears a visitation of cholera, plague, or yellow fever, even though they may be at our doors, or even already within our port cities. The enjoyment of exemption from certain diseases and our increased longevity is much more due to sanitation than to accomplishments in other departments of the medical arts. Even the treatment of tuberculosis, diabetes and Bright's disease is to be credited as much to the preventive as to the curative phase of medical practice; in other words, if diseases of this kind cannot be cured, at least right living will minimize their frequency and severity. While almost within the span of a single lifetime curative medicine has been placed on a sound basis, even the middle-aged among us can remember when health departments were a novelty, and limited to the oldest and largest communities.

Today, municipal sanitation is not limited to the larger cities. The development of public sanitation shows no sign of arrest, but is extending down to villages and farms in the open country; here and there, we find county health departments. In short, the general trend is decidedly toward the expansion of the preventive phase of practice, which is quite natural since the medical profession has but recently begun to learn with certainty the underlying causes of human diseases and how they may be prevented. When this knowledge

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becomes disseminated among the lay public, a general demand for governmental action results.

The care of public health is a peculiarly fit one for governmental control, since the health of every one in the community indirectly affects that of all his neighbors, so far as communicable diseases are concerned; and the scope of the health officer's activities, as we know, has been enormously widened with the growth of medical science. It is desirable for health officers, physicians, and others interested in public sanitation, to keep in view this trend, in planning their own future line of action. While there may occasionally be retrogression, in general, it may be assumed that their work will expand and their fellow workers increase in number.

In the larger cities the health department already stands on an impregnable basis, but in the small city or country town having but few paid employees, its footing is often very uncertain, and its appropriations always stinted and often penurious. The public does not understand, without a long education of actual experiences, what there is for a health department to do that demands the spending of money; and its work is frequently left in the hands of a voluntary organization of citizens, or to the honorary or side-line activities of a local physician in private practice. It is therefore of the highest importance to all those interested, whether paid or voluntary, to use their scanty funds with the greatest effect and thus show their line of work to be worthy of more financial support.

The health officials must recognize at the outset that there are many lines of work belonging to a health department, listed and discussed by authors and writers, which fall to the lot of a metropolis, but cannot be undertaken by a small town. The sapling may not spread its branches like a tree; and as the wise horticulturist will prune it to one or two shoots that the top may not drain and wither the root, and that it may bear fruit as well as leaves, so the wise health officer in a new and unestablished position will confine his activities to a single, or two or three well chosen lines of work, that may permit of their bearing some fruit that is visible to the public, and not exhaust his scanty appropriation on diversified activities, which present, indeed, a great showing of leaves but no fruit in the end.

The growth of a young health department resembles that of a tree in the sense that its growth is slow, and cannot at first be expected to accomplish much; it cannot fulfill any valuable service unless cultivated and established on a permanent basis. More than any other governmental function, perhaps, its growth and welfare depend on public confidence; and more than any other, too, it is in a position to gain access to public confidence.

Education of the public as to what the department is doing, and what it can or might do, is, therefore, of vital importance to the expansion and growth of the department; or pursuing the tree analogy, it may be called the fertilizer on which the department thrives.

In a small town, especially, it is easy for a competent officer to gain the public confidence; for he has free access to the town paper, with assurance that whatever he chooses to submit in an attractive form will not only be gladly published but read by the majority of subscribers. He should, therefore, not fail to set apart a liberal share of his time to the preparation of short but frequent articles or notes, be it in relation to his work as health officer, or be it on general health topics. There is a never-ending supply of such topics which would seem trite to a fellow practitioner, but will never fail to interest the general reader. Indeed, as we know, such articles, syndicated and paid for, are now a daily feature of most metropolitan newspapers. A local physician in private practice might find this incompatible with professional ethics, but, as health officer, he could do it with propriety as a part of his duty. Besides this form of education, he should speak often in public and seize any other opportunities that may arise for impressing the public with the value and need for health work, and with the fact that they have a health department which is not idle.

It is unfortunately the case that members of our profession are apt to slight the necessity for this public work because, in many cases, it might be regarded as improper, or else because it takes too much of their time and thought from actual accomplishment. For these reasons the public choice, in our democratic system, is apt to fall upon a mere talker, a self-magnifier, or a politician, rather than a man of high standing in his profession. The incumbent must bear in mind, however, if he would be successful in public sanitation, that self-effacement, however great a virtue in private life, is not one in a public office. With his utmost efforts he cannot accomplish enough to enlighten the public on the work of his department and the requirements and desirability of public health activities, and that it is for this reason that so much stress is laid upon it.

Having now critically examined the field before him in his own little domain, and having made himself familiar with the work of others in theirs, let him select one principal direction for his activities and expenditures,

with one or two secondary ones, at most—the number depending on his time and appropriations, and not attempt to touch other lines of work until work along these selected lines is well in hand as an established feature of the department's work. Public attention should all be focused upon the main feature until something has been there accomplished, bearing in mind that to introduce a new one is to create a diversion which may result in completely dissipating the good impression and nullifying the work previously brought about. One line of work being on a sound basis, another may be slowly added, and another, and another, as years go by.

In selecting the best line of work for a young health department to pursue, an eye must always be on the expense and the money allotted, as well as on its general importance from a sanitarian's viewpoint. Regard must be had also for the time required for accomplishment and for the showing in the public eye, this latter especially in a newly established department, and to the favor or opposition it may excite. It has been well said that of the two instruments of the health officer, persuasion and compulsion, the former is in all cases to be preferred. Indeed, the latter should only be taken up under the pressure of public opinion. So then those lines should be selected where the public can be led rather than those where it must be driven, and in all cases moot questions of desirability, which give rise to difference of opinion, should be studiously avoided in favor of those meeting with the general approval of the intelligent classes.

As concrete selections illustrating the work referred to, one of the first subjects for inquiry by a new health department is usually the public water supply; and where it is found of dangerous or doubtful character, its amendment, or at least publicity as to its dangerous character and the necessity for its purification, must be seriously undertaken. Though this involves in itself a long and laborious campaign, yet it is sure in the end to be successful in some measure; for there are few communities so poor, and so reckless of their own health, as to allow the condition to continue when once it is brought home to them. The campaign once started, every additional death from typhoid fever is a hammer blow upon the public mind, when before it would have passed unnoticed, and anything resembling an epidemic is likely to cause alarm leading to a general demand for the proposed improvements, but only because the public mind was in a state of preparation.

Again, the milk supply is one eminently fitted for public control, for, first, the great body of the public are consumers and will welcome it; second, the producers are too few to be heard and generally live beyond the limits of the town. Whether this surveillance be by certification, pasteurization, bacterial examination, or merely by inspection of dairies, much may be accomplished with very little effort or expenditure; and by classifying and rating the producers in public print, the delinquent ones are obliged on business considerations to mend their ways, in many instances without legal compulsion.

So, too, regulation of public food markets, slaughter-houses, and restaurants, is always a popular measure, and much here may be accomplished by persuasion and the showing to the laggards of a better commercial way. For example, almost everybody of intelligence is glad there is some one to see to the proper handling of food in restaurants or other public food establishments. This costs the public practically nothing, the dealer very little, and even that little is repaid by increased patronage.

On the other hand, such subjects as sewerage systems, plumbing and privies are among the last which should be taken up, because they demand great expense on the part of householders and (in the case of sewerage) of the municipality, thereby increasing taxes, and demand too much time and effort on the part of the health department to overcome both public inertia and private opposition. It would be too easy for the department to injure itself and its possible accomplishments irreparably, unless it approaches these lines of work through a long series of years and after having gained the public confidence. More than that, the health officer should not allow himself to be carried off his feet by ill-considered demands for expensive public improvements; for accession to such demands will have no less deleterious an effect in the sequel, on the chosen work of his department, than if he himself had proposed them. The health officer should stand his ground and repress all such movements, using for the purpose such arguments, financial and otherwise, as will show that the proposed improvements are out of place at that particular time.

Frequently, such demands are devised by scheming politicians who are looking for jobs, or augmentation of city funds by increased taxation or a bond issue. Resistance to such plans will sometimes naturally result in some underhand efforts to discredit the health department which opposes them. But to yield would be even worse, and, therefore, it is imperative that all work and opposition be carried on above board, for the resistless force of public opinion will usually favor, and ultimately strengthen, the position of the

health officer who is in the right and able to show it.

Such undertakings as public clinics, maternity benefits, nursing services, etc., might be named as among those doubtful subjects which should assuredly be let alone by small health departments with limited appropriations.

In closing, I wish to gratefully acknowledge the assistance of Mr. George W. Colles, M. E., in the preparation of this paper, as well as to express my appreciation of the valuable help rendered by him, while associated with me as District Sanitary Engineer for the State Board of Health, in successfully carrying out some of the principles and policies advocated in this paper.

ABSTRACT OF DISCUSSION.

V. M. Ehlers, C. E., Austin: Dr. Hasskarl has been very modest in referring to his accomplishments. Brenham is one Texas town with a part time health officer that is carrying out a real sanitary program. Through Dr. Hasskarl's efforts, a water softening plant has been installed, and as a consequence, many of the old style cisterns have disappeared, and mosquito breeding has thereby been minimized. All dairies, creameries, slaughter-houses, and food establishments, are inspected at regular intervals. Milk, ice-cream, and soft drinks are analyzed, and water is tested daily. The streams and ponds are oiled during mosquito breeding season. Surface closets are being replaced by flush water toilets and connected to the sewer system. Streets are cleaned at night when the least number of people are out, and the refuse collections of the town are burned. Dr. Hasskarl has demonstrated that a part time health officer, with a sanitary inspector under his supervision, can get results in a small town, with a minimum amount of expenditure. Other Texas towns without this service might profit by adopting Dr. Hasskarl's program.

Dr. A. H. Flickwir, Houston: Tell us how you dispose of wet garbage; that seems to be a problem in most places.

Dr. Hasskarl (closing): Dr. Sappington, in his discussion before this section, pointed out that a city needs: first, a pure water supply and second, a good sewerage system. With this I am ready to agree as concerns a city; but it is evident that as we approach the less congested rural community, to which alone my paper relates, the relative importance of a general sewerage system to health diminishes, and, *pari passu*, its relative expense increases. At some point, therefore, in the course, sewerage loses its place of second importance. In this, as in other elements, sewage-disposal may experience a gradual evolution with the growth and concentration of the town; rising slowly from private individual to group sewerage, thence to partial public sewerage, and so on; always depending on local conditions, both as regards importance and expense. Sewerage is principally, also, an engineering problem, depending upon natural drainage conditions, as fall and outlet, as well as upon stream pollution. Local cesspools may be permitted in one locality and not in another. Moreover, no attempt at a general sewerage system should be made until a complete sanitary survey of the community has been made and spread upon maps; this is work for a sanitary engineer, and is one of those unavoidable expenses which must be met, if still more expensive mistakes are to be avoided. The need for a sewerage system cannot be determined by popular vote, nor even by a gathering of medical men unsupplied with the data which only a sanitary survey can provide. The subject of public sewerage is one of the most controversial that can be raised, and involves many factors extraneous to the work of the health department; for example, taxes, issuance of bonds, and compulsory expense to house-owners. It is, therefore, an exceedingly good problem to be let alone by the average health officer of a small town, at least until most of the easier matters are well in hand; and then approached only through a course of several years' preparation of the public.

Replying to Dr. Flickwir's question, I regret to state that I am unacquainted with the garbage problem in the city of Houston, and therefore cannot offer any pertinent suggestions. Garbage-disposal is a subject of considerable concern to the average health officer, particularly in cities where an efficient collecting system is not in operation. Hotels, restaurants, markets and other public food establishments are, as a rule, under the surveillance of sanitary inspectors, and garbage which accumulates at such places is usually disposed of in a satisfactory manner by contract or otherwise. Boarding places and homes require frequent house-to-house inspection to enforce compliance with ordinances governing storage and movement of garbage. When the collection system fails in the residential section, or the people are unable to make arrangements to have the garbage hauled away, the situation can be relieved by burning or burying the garbage on the premises.

CONTROL OF COMUNICABLE DISEASES FROM A HEALTH OFFICER'S VIEW.*

BY

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The list of communicable diseases varies with the location, but can be classified in this discussion as common and special. For the present, then, let us group them as follows:

1. Common communicable diseases: Typhoid fever, dysentery and diarrhoea, diphtheria, scarlet fever, measles, mumps, whooping cough, smallpox, chickenpox, pneumonia, influenza, venereal diseases and tuberculosis.

2. Special communicable diseases: Malaria, hookworm, dengue, typhus fever, yellow fever, pneumonic and bubonic plague and leprosy.

Communicable diseases may be defined as those of germ or parasitic origin, that can be transmitted from one person to another, either by direct or indirect contact. We can again classify them according to the route of transmission, as follows: (1) The air route or droplet method, as in respiratory diseases; (2) fecal and urinary discharges; and (3) insect bites, in the case of insect borne diseases.

Epidemiology has offered us the opportu-

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nity to classify these diseases according to the causative organisms as follows:

1. Group of known etiology.
   A. Diseases Due to Bacteria:
      Typhoid fever.
      Dysentery and diarrhoea.
      Diphtheria.
      Scarlet fever.
      Pneumonia.
      Tuberculosis.
      Gonorrhoea.
      Whooping cough.
      Leprosy.
      Anthrax.
      Plague.
   B. Diseases Due to Spirochaetes:
      Syphilis.
      Yellow fever.
   C. Diseases Due to Rickettia:
      Typhus.
   D. Diseases Due to Parasites:
      Malaria.
      Hookworm.
   E. Diseases Caused by Fungi:
      Blastomycosis.
      Actinimycosis.
2. Group of unknown etiology.
   Smallpox.
   Chickenpox.
   Mumps.
   Measles.
   Influenza.

I wish to call your attention to the fact that we have placed some of these diseases in an unknown etiological group, but in a study of control measures, we will consider all these groups jointly and study them from two main classifications: (1) Individual measures, and (2) environmental measures. But before I take up these classifications, I want to emphasize one thing, and that is that we must have accurate and prompt reporting before any health officer can employ successful control measures.

INDIVIDUAL MEASURES.

The individual suffering from a communicable disease interests the health officer in that he may become a menace to the community by any or all of the following methods: (1) By direct contact with well individuals; (2) by becoming a carrier; or (3) by indirect methods of contamination of food or soil pollution.

Vaccination in the control of smallpox, typhoid fever, and diphtheria has proven its merits and will in time become of great importance in the control of these diseases. In some states there is a difference of opinion as to whether the health officer should do wholesale vaccinations or leave these to be done by the practicing physicians. In the states where the health department vaccinates the results have been excellent, and people who would not otherwise take the trouble to do so, have gone to these stations by virtue of contact. There has never been any friction between the physicians and the health department over this procedure. I am convinced that in localities where such conditions are prevalent it is good policy for the health department to do the vaccinations on a large scale.

Quarantine and isolation have been rather rudely abused by many physicians, because the real mode of transmission of certain communicable diseases has been little understood. I believe that smallpox and chickenpox should both be quarantined alike, and for a period only while in the eruptive stage. Further, all contacts should be quarantined for the period of incubation—twelve to fourteen days—unless successfully vaccinated, when they may be released after a good take from vaccination. I should like to state here that all eruptive fevers are more contagious in the pre-eruptive stage and that the degree of contagion lessens every day after eruption, with the possible exception of scarlet fever.

Measles should be quarantined as early as diagnosis can be made from Koplik spots and for five days after the eruption. For absolute control, all contacts should be quarantined for the incubation period. Diphtheria is contagious only as long as there are Klebs-Loeffler bacilli present in the throat, and quarantine may safely be lifted after two consecutive negative cultures at 48-hour intervals are made. All contacts who are carriers should be quarantined and released only as in the release for the case. Scarlet fever is transmissible from nasal, throat or ear discharges and desquamation has nothing to do with it, as was formerly believed. Patients can be released from quarantine after these discharges have cleared up. Contacts should be quarantined during the incubation period—3 to 7 days.

Typhoid fever, tuberculosis, and other transmissible diseases, should be isolated and proper instructions for prophylaxis given. There are special diseases that should be both quarantined and isolated with strict enforcement. Some states are rather reluctant in quarantining for smallpox, and my own observation has led me to believe that they are right in theory, as vaccination is a sure prevention and is secured with a minimum of discomfort and no fatalities.

ENVIRONMENTAL CONTROL.

The environment if of public health importance in that we may control disease by destroying the vehicle of infection, by destroying the infection in the vehicle, or, better still, by preventing infection of the vehicle of transmission.

Sanitation has for a long time been left to people who are not specially trained in the subject, and physicians have rather lightly

passed over it, without definitely stating what to do and what not to do. There has been a great deal of wasted energy in this direction, without any actual controlling results. However, with the improvement of modern homes and with better living conditions and the desire for more comfort, sanitation has advanced and sanitary engineering has become a scientific phase in the control of communicable diseases. Sanitary engineering must be recognized and given credit for the results it has brought. There are many measures in control that naturally come with better living conditions. I may add that if every home in the State of Texas had perfect sanitation, there would still be typhoid fever, due to contact with a carrier. However, sanitation has been the principal cause of the reduction in the number of cases in a great many diseases.

Drainage for the prevention of mosquito breeding usually presents a major problem. The expense incurred is usually one for which we are forced to offer some alternative measures in control, as larvacides, screening, etc. However, drainage is ideal, and the more we can get done, the less we will have to do with other measures.

The destruction of insects, rodents and parasites decreases the lines of transmission of certain diseases, and this usually becomes a matter of law enforcement. However, the health department must carry on sufficient propaganda to effect these control measures.

Control measures, then, are a combination of medical and engineering methods. Briefly we have considered them as follows: (1) Vaccination, (2) quarantine and isolation, (3) sanitation, (4) drainage, and (5) destruction of insects, rodents and parasites. In instituting control measures, the health officer has to consider the economic conditions and also the public sentiment of the community. The city must be educated along these lines and should have a thorough conception of the mode of transmission of the more prevalent diseases. Also these measures should be within financial reason and should not interfere too much with the personal liberty rights of the individual. In this connection, I wish to state that the experience of most health officers is that our best work is that of moral suasion rather than of law enforcement. I know of nothing more harmful to the furtherance of public health work than the health department becoming a party to a law suit over a nuisance offense. I do believe, however, that we should protect people in conditions that jeopardize their health, and thus law enforcement may become necessary in some instances.

SUMMARY.

Control of communicable disease can be summed up as follows:

1. Promptness and accuracy of reporting.
2. Better understanding of the source of infection as well as vehicle of transmission.
3. Physicians to explain more in detail, beside prophylaxis.
4. Educating the laity in the method of transmission of these diseases.
5. Education in vaccination. Here the practicing physician can be of great service by helping to educate the laity in early vaccination, especially in pre-school children.
6. Sanitation of the home and sanitary engineering for communities.
7. Periodical physical examinations.
8. Personal hygiene.

CONCLUSIONS.

There must be a close relation between the health department and the practicing physicians, and the health officer must be helpful and not antagonistic to the physician.

In closing this paper, I want to say that the medical profession as a whole, has been unselfish and has done much in public health work, without hope of remuneration or reward, and with their close ally, the sanitary engineer (who seldom gets credit for his work) we hope some day to get nearer our ideals of life through the absolute control of disease.

ABSTRACT OF DISCUSSION.

Dr. K. F. Maxcy, Washington, D. C.: When the idea of specific contagion first permeated the medical world and the bacterial causes of some diseases came to be established, there ensued a period of great optimism regarding the possibilities of control by means of quarantine and isolation. With the accumulation of experience it has become increasingly evident that our hopes in this regard would not be realized in the case of some of these diseases. The reasons are evident: First, the period of maximum infectivity often precedes the clinical onset, so that by the time the disease has been diagnosed and the patient isolated, most of the damage has already been done; second, there may be mild, unrecognized cases which never come under restraint; third, there may be healthy carriers, all of whom it is either impractical or impossible to isolate. For these and for other reasons, we have come to have less and less confidence in measures of quarantine and isolation, employed alone, in the suppression of spread of an epidemic disease. Why not face the situation frankly, and realizing our limitations and taking the public into our confidence, teach them not to expect too much from quarantine?

Dr. A. H. Flickwir, Houston: In the Houston schools, the public health nurses, the supervisor of hygiene, Dr. T. O. Woolley, and myself, lecture frequently to the teachers and pupils on all phases of public health work, paying particular attention to communicable diseases. One difficulty we have had is in the control of measles. Children in the early stage of measles will not be discovered at school until others have come in contact with them. Of course, as soon as the case is known we quarantine

and placard "measles." The control of measles always has been, and always will be, one of the hard problems in school hygiene.

Dr. T. O. Woolley, Houston: Measles became epidemic in the Houston schools last year and about 4,000 cases developed, all of whom lost much time from school. A pupil came to school apparently well and at 10 a. m. he developed a measles rash, while sitting at his desk. All the pupils in that room became contacts. How are we to prevent an epidemic of measles when there are no apparent signs or symptoms to forewarn us?

Mr. Burton A. McGlachlin, Port Arthur: We watch our children very closely. Each teacher is constantly observing and the minute she notes any abnormal symptoms, the child is sent to the school nurse or physical director. If the child is found with an elevated temperature or if there is sufficient cause to believe that it is ill, it is sent home. The child is readmitted only after being given a doctor's certificate of being noninfectious. We have in this way prevented practically all epidemics of all types in the schools of the city where nurses are employed full time. We have had some trouble with the schools which are without full time nurses.

NASOPHARYNGEAL FIBROMA.*

BY

A. F. CLARK, M. D.,
SAN ANTONIO, TEXAS.

Because nasopharyngeal fibroma is an uncommon condition, and because there is such a vast difference in the therapeusis offered by rhino-laryngologists for this tumor, I have selected the above title.

A review of medical literature at once impresses one with the varied nomenclature for this condition, and also shows how diverse are the opinions with reference to its pathology and anatomy. Thomson and Grunwald give the following synonyms: Nasopharyngeal polypus; fibroid tumor of the pharynx; fibroid tumor of the base of the skull; fibroangioma of the nasopharynx; retromaxillary polypus; juvenile sarcoma of the nasopharynx. It is generally agreed that these growths, histologically, are benign, but there has long been a clinical suspicion of malignancy in certain types of them. Recent studies by both clinicians and pathologists have proven that true nasopharyngeal fibromas are at first benign, but with a tendency, in later years, to become sarcomatous at the base.

For convenience of discussion, I will use the classification of these tumors as outlined by Ferreri of Berlin. The first, or true pharyngeal fibroma, has its origin from the aponeurosis of the sphenooccipital recess. It will run a benign course, disappearing spontaneously around the age of twenty or twenty-five, if not removed surgically, or otherwise. The tumor sometimes attains an enormous size and by anatomical interference may produce pressure disturbances which are sometimes quite serious; it may occlude the upper respiratory passages or penetrate into the skull and produce the symptoms of an hypophyseal tumor. The second group is spoken of as pseudofibromas. This type of growth is the one that often baffles us, first, in a true diagnosis, and secondly, in the safest therapeutic procedure. They are not so vascular as the true fibroma, but produce secondary hemorrhage by injury to and ulceration of normal tissues with which they come in contact during rapid growth. They usually spring from the region adjacent to the nasal choanae and have a tendency to a violent course, with rapid recurrences after surgical removal and a malignant degeneration. In taking a backward and upward course the tumor may penetrate the skull through the cribriform plate of the ethmoid bone, or through the pharyngeal vault by way of the sphenoid sinus. As there is practically always an associated purulent sinusitis in these cases, one can readily see how easy it is for infection to extend through these cranial vestiges, resulting in a brain abscess. These tumors, however, seem to have a preference for a forward growth toward the face. Taking this course they penetrate the various sinuses and the orbital cavity, disfiguring the face and causing the so-called "frog face" expression.

As mentioned at the outset of this paper, the treatment recommended for this condition varies according to the individual ideas of the rhinologist considering the subject. Of recent years, x-ray and radium in conjunction with surgical measures has practically superseded the older methods of cold snares or galvanocautery. In the purely benign type, surgical measures alone are usually sufficient for a cure; however, the high mortality and frequent recurrences can be avoided by the use of radium. In the past two years New and Fiji of the Mayo Clinic, Goldsmith, Dabney, Crowe and Bailey, have reported cures with radium and advise against surgical procedure. In the second group with extensive involvement and a tendency toward malignancy, one would usually gain nothing by surgical measures. The operative area is very inaccessible; and the mutilation to the face and nose, combined with the dangers of an unavoidable hemorrhage or of a secondary pachymeningitis, practically eliminate surgery in the type of case I am about to report.

CASE REPORT.

Owen Brown, white, male, aged 21 years, had had the usual diseases of childhood but no serious illness

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until 14 years of age, at which time the nasal passage gradually became occluded on right side. During the first year of nasal occlusion, the patient had a fibroid growth snared from right nasal passage on two different occasions. A pathologist examined the tissue and reported it to be fibroma. During the year 1919 (at age of 15), he had an operation performed by a general surgeon who made an external incision, through the face in the right malar region, opening into the right antrum to remove the rapidly encroaching fibroma. Electrolysis was used by way of the nasal passage during 1920. The patient gives a history of repeated violent nasal hemorrhages during and between each of these operations. Dr. J. S. Steele, who had the case under observation, states that the growth would rapidly recur after each removal.

In April, 1921, when I first saw the patient, there was a marked distortion of right side of face with the so-called "frog face" expression. There was marked exophthalmos, the right eye being pushed upward, outward and forward. The right antral region was markedly enlarged. The right nasal passage was occluded by a hard fibrous growth which was covered with a slimy fetid mucus. Examination of the oropharynx revealed the same type of growth extending downward from the right choanal space and pushing the soft palate downward and forward. During the summer of 1921, the patient was having alarming recurrent attacks of epistaxis and we decided to institute x-ray therapy. This caused the growth to diminish in size but the hemorrhages became more alarming. The case was referred to Dr. R. C. Lynch of New Orleans, who advised against surgical interference, because of suspicion of malignancy, the magnitude of growth and the seemingly useless mutilation of the face in trying to remove the tumor. He advised the use of radium and the continuation of x-ray therapy.

In March, 1922, in consultation with Dr. J. W. Nixon, Jr., it was decided that a ligation of the external carotid artery would be necessary to prevent further loss of blood. The vessel was ligated in continuity, two ligatures of 20-day chromic catgut being used. The hemorrhages did not recur for 30 days, at the end of which time the circulation had re-established itself and profuse hemorrhages began again. At this time we ligated and severed the external carotid artery and the external and internal jugular veins. Following this, four radium and eight x-ray treatments were given over a period of six months. The tumor rapidly disappeared, without further hemorrhage, and has not been visible since January, 1923.

Conclusions: In my opinion such cases as the one reported should not be subjected to operative procedures, but should have radiotherapy, and if hemorrhages occur, should have ligation of the blood vessels, as outlined.

ABSTRACT OF DISCUSSION.

Dr. J. W. Nixon, Jr., San Antonio: The results following the first ligation in this case were gratifying and after the second ligation, the improvement of the patient was spectacular. Doctor Clark has called your attention to the change from a hopeless invalid to a strong robust boy in the course of a very few weeks.

It is not always an easy matter to ligate the external carotid artery. A review of the anatomy together with a study of the illustrations of the artery in its relations to the surrounding structures, are apt to give a surgeon an erroneous idea as to the ease of the operation. In thin subjects the procedure may be comparatively simple, but at times it will be found necessary to ligate the artery in obese patients where a net work of veins are found crossing the artery; in such cases considerable confusion may result. It is well to remember that the external carotid at its beginning is in reality internal and slightly anterior to the internal carotid. However, it is not safe to attempt to identify the artery by its relation to the internal carotid at any time, for the external carotid, like any other artery of the body, does not present its normal relations in every case. The internal carotid artery gives off no branches in the neck while six branches arise from the external carotid in the neck before it terminates in the superficial temporal and internal maxillary. It is, therefore, my policy to identify the external carotid artery by the presence of the branches mentioned.

In the vast majority of cases, the superior thyroid is the first branch of the external carotid. The point of ligation should be at the very beginning of the external carotid, and not between the superior thyroid and the lingual branches as given in most text books. My reason for ligating proximal to the superior thyroid is that the external maxillary, lingual and superior thyroid may leave the external carotid by a common branch and if, by chance, the ligature should be placed distal to the external maxillary, the effect of the ligation would not be satisfactory. This is explained by the fact that from the external maxillary arises the lateral nasal branch, as well as the superior labial which in turn gives off the septal artery. It is quite obvious with these facts in mind, that the bleeding from the nose would not be checked if the ligature was placed beyond the external maxillary. Because of the rich anastomosis of the superior thyroid with its fellow of the opposite side, I do not believe the activity of the thyroid gland would be diminished by placing the ligature so as to include this artery. It is advisable to doubly ligate the artery and cut it between ligatures. The case in question illustrates the value of this point in technique. At the first operation we ligated the artery in continuity and at the second operation when we cut the artery between the ligatures, we found that the circulation through the artery had been re-established.

Doctor Clark has brought out another important point in ligating an artery in this particular type of case, that is, all the surrounding veins should be ligated as well as the artery itself. At the second operation we ligated both internal and external jugulars. We felt that this procedure had something to do with retarding the re-establishment of circulation which is an important factor in treating cases of this kind.

Dr. R. C. Lynch, New Orleans: I had the opportunity of seeing this patient and I must admit that I was quite surprised to see him looking so well again this morning. The doctor is to be congratulated upon the results obtained. I believe that radium is the one outstanding method of treatment in conditions of this kind. I believe also that ligation of the external carotid is a well planned procedure. Usually, in ligation of these vessels I use four sutures and cut between the inner two, so as to guard against any slipping. Ligation of the veins is also decidedly favorable to atrophy of the growth which will follow the radium treatment. There is no condition which is more likely to be followed by exsanguination than such tumors as these. Any avenue of approach which gives sufficient room for ready removal is certainly very mutilating. Even in this instance, one cannot completely enucleate the growth. If one can get entirely behind the growth, the hemorrhage will be almost nil. To do this is very much of a job, and

I do not think any one approaches it with any degree of certainty.

Dr. E. D. Maloy, Temple: Twenty years ago, I saw my first case of fibroma of the pedunculated type; it had a ball-valve action. This growth had two-finger like portions, one in each side of the nose, which projected forward almost to the anterior nares. These projections were connected back of the septum by a thickened fibrous membrane that was attached to the right side and seemed to be coming from the sphenoidal region. I got an old style adenoid forceps and put it back as far as I could in the pharynx. By bringing the handles down and the point up I got hold of the growth, removing it at its base. At the present time I have another case of a similar nature in which the growth is attached by a broad base above and is adherent to the middle and posterior portions of the middle turbinate on the right side; posteriorly, it seems to be attached to the anterior wall of the sphenoid. I do not believe this growth could be removed with a snare as it is firmly attached. I cannot push it back into the pharynx.

I have devised the following methods of dealing with this case. I have a long slender narrow pointed electrocautery knife. I will put forceps on the growth and pull it as far as I can to one side, and cut it loose from the middle turbinate with the cautery knife, then making slight traction downward with the forceps, and working from before backward, I intend to cut it loose above at its base. The snare could then be used to sever it from its sphenoidal attachment. Another method that might be used is to break up the adhesions to the turbinate by blunt dissection, and then employing a Ballenger turbinotome (which is a swivel knife built like the septum swivel knife, only larger and more strongly built); insert forceps through the fork or opening of the turbinotome, grasp the growth firmly, and then, rotating the swivel knife posteriorly, with an upward and forward stroke sever its attachment to the sphenoid and at its base above. I think the hemorrhage could be controlled by first placing a strong silk thread through the nose, one end coming out through the mouth, the ends of the string being anchored to the cheek by adhesive plaster. If the hemorrhage is severe, a posterior nasal plug could be quickly tied to the oral end of the string and pulled firmly against the posterior nares. Then the nose could be packed firmly from before backward against the posterior nasal plug, until the bleeding was controlled.

In all operations where there may be severe hemorrhage, I think it wise to have a coagulation time test made. If this is not convenient, and especially if the patient shows any symptoms of hypothyroidism, then tonic doses of thyroid extract and a high vitamin diet should be a part of the preparation of the patient for operation.

Dr. J. H. Foster, Houston: There is no very marked distinction necessary in the classification of nasal tumors. A true nasofibroma is sarcomatous and sessile and cannot be snared; you are likely to lose your patient from hemorrhage. A confrere of mine saw a patient that I had seen and told me that he was going to have him in the office and take the tumor out. I warned him that he had better not undertake it in the office and that he should be prepared to check hemorrhage. He operated on the case at the hospital and the hemorrhage was very great. He then resorted to radium, with a successful issue.

Dr. C. P. Schenck, Fort Worth: I had a nasal fibroma to handle, in 1914. It was in the right nostril near the posterior end of the middle turbinate and was attached by a broad base to the base of the skull. The nasal snare would make no headway and a Tyding's tonsil snare was badly bent in an attempt to cut through the tissue. Finally, Boettcher's tonsil scissors were resorted to and a large part of the mass was removed. In consistency the tumor cut much like a leather belt. Hemorrhage was a very prominent feature, but was controlled by the electric cautery. Several removals were necessary and there was a marked tendency toward recurrence. The largest mass removed was about the size of an English walnut. The diagnosis was confirmed by microscopic examination. The patient was observed over a period of about two years and was doing well when last seen.

Dr. Louis Daily, Houston: We had a case of a very large nasopharyngeal fibroma in 1920. It was as large as a hen's egg, hanging below the soft palate in the throat. It was attached by a narrow pedicle to the posterior end of the middle turbinate. We encircled it with a snare and tore it from its attachment; there has been no recurrence.

Dr. Clark (closing): I am sorry that Dr. Stout could not be here, because he has been following this from a histological standpoint. There are two types, the true fibroma in which there are fibrous tissue cells throughout, and the second type in which the cells seem to branch out and take on a sarcomatous growth. With reference to the surgical or nonsurgical treatment, I heard a case report at New Orleans by Dr. Dupuy, in which case he did a tracheotomy prior to removal of one of these growths. I think it would be better to ligate the external carotid artery in continuity, and then later the circulation will be reëstablished. Personally, I will never use surgery but will use radium.

PROLAPSE OF THE RECTUM.*

BY

J. W. NIXON, Jr., M. D.,

SAN ANTONIO, TEXAS.

This condition is of such frequent occurrence, so difficult to treat, and at times so grave, that I feel justified in reporting nine cases which have been treated successfully by the simple and effective method of submucous injection with alcohol, as first advocated by A. D'Espine of Geneva.

Submucous injection is not a new procedure. It was advocated by Langenbeck a number of years ago. This method, however, has not enjoyed much favor since the use of such substances as ergot, strychnin, white oak bark, phenol, etc., commonly referred to in text-books has either led to frequent infections and sloughing or failed to produce a cure. But these disadvantages do not apply to D'Espine's method.

Prolapse of the rectum in infants may be caused by diarrhea, constipation, straining, whooping-cough, etc. All the cases that came under my observation, with the exception of one, were associated with marked and prolonged diarrhea. Since it is not uncommon for the prolapse to disappear spontaneously as the diarrhea subsides, it would seem plausible to assume that nothing

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more than the cure of the diarrhea would be necessary for the relief of the rectal condition. While in a considerable number of cases such cures take place, still a certain percentage will run on for months, resisting all forms of treatment and will finally result in an undernourished and weakened condition which invites complications that may prove fatal. This is particularly apt to occur in out-patient clinics where the mothers are either too ignorant or are too busy earning a livelihood to give the child the proper attention. It is in this type of case that this new method is of greatest value. Furthermore, it is well to remember that in long standing cases of diarrhea associated with prolapse of the rectum, the diarrhea may be prolonged by the prolapse itself as a result of irritation to the bowel.

In addition to the serious complications that may follow, another question to be considered is the possibility of a prolapse of the rectum in later life. Gastroenterologists, tell us that colonic stasis due to a distended colon, which occurs frequently in adult life, can to a great extent be avoided, if pediatricians would emphasize the importance of educating the public in the matter of proper infant feeding, so as to avoid feedings that have a tendency to dilate the colon. It is perfectly logical to assume, therefore, that a prolapse of the rectum in the infant may facilitate its recurrence in the adult, and the longer the prolapse remains uncorrected, the more likely it will be seen in later life and in a more serious form. It is not unusual to obtain from the adult suffering from prolapse of the rectum, the history of his having had the condition during childhood. The importance of the proper care of prolapse during infancy is thus obvious, especially when a comparison of this simple and effective method of treating the child is made with the more complicated and less satisfactory operations necessary in the adult cases.

Besides the above-named exciting causes, E. G. Alexander calls our attention to anatomic conditions as a predisposing cause. He attributes the frequency of rectal prolapse in children as compared with adults to the lax mesorectum, the shallowness of the sacrum as well as to the shape of the rectum, and to weakness of the muscles. A study of his cases revealed a weak, flabby musculature which, although generalized, was found to be more pronounced in the lower extremities. This fact is borne out by the great number of prolapse cases seen in institutions for the insane, where a majority of inmates present a flaccid muscular condition.

Many methods have been employed in the treatment of prolapse of the rectum in infants. Where diarrhea is the cause, treatment of the diarrhea supplemented with strapping of the buttocks and keeping the child in bed, has hitherto been the usual manner of handling these cases. When these simple measures fail the surgeon is asked to attempt a more radical procedure, such as cauterization, rectopexy, colopexy, etc. Occasionally, resection is tried. These operations may be performed in certain cases but they are serious and unsuitable for the weakened, undernourished patient usually seen where the prolapse is one of long standing. Furthermore, recurrence after these operations is common; permanent injury to the rectum, such as stricture, is not unlikely, and the mortality is relatively high.

The technique of D'Espine's method is as follows: The patient is prepared in the usual manner for rectal operations by giving a purgative, preferably castor oil because of its constipating after effects and following it with an enema to empty the lower bowel. With the patient under general anesthesia, the perineum is cleaned with sterile water and painted with picric acid. The index finger is then passed into the rectum and the needle inserted at about six millimeters from the anal margin. With the index finger in the rectum as a guide the needle is passed along the side of the bowel just outside the mucous coat until the depth of from five to seven centimeters has been reached, at which point two or three centimeters of absolute alcohol are injected on each side of the rectum. The punctures are sealed with collodion and a pad is applied which is held in position by tightly strapping the buttocks together. The child should be kept in bed ten or twelve days and paregoric with bismuth should be administered once or twice a day to prevent bowel movements. During this time the child is not allowed to sit on a bed pan but must pass its bowel movements along the side of the pad, the dressings being changed when necessary.

Of the nine cases in my experience with this method, five were under my own care and the other four came under my personal observation. They were all between the ages of two and four years. Among nine cases treated there was only one recurrence. This patient developed whooping-cough shortly after leaving the hospital, which I believe brought on the recurrence. However, a study of the literature discloses the fact that a second, and occasionally a third injection may be necessary before a cure is established. To avoid recurrences much emphasis must be put on the proper postoperative care and nursing. Where the patients are in a ward,

it is not unusual for the nurses to be too busy to keep a close observation over the case, thus the dressing will be allowed to become loose and of no value. This must be closely guarded against.

It is not definitely understood how this method brings about a cure. Findlay believes the results to be referable to two factors. The chief factor, according to him, is inflammation of the tissues at the site of injection which brings about a cicatrization which anchors the bowel in position; the second factor being an increase in the tone of the sphincter, resulting from the rest in bed and strapping of the buttocks. In this connection it may be added that although cicatrization may take place, stenosis does not occur, since the mucosa is not injured during the operation. In fact, examination of these cases after the alcoholic injection does not show any signs of stenosis or induration of the bowel.

While agreeing with the above-named theories, I believe that the increase in the tone of the muscle, resulting from the irritating effect of the alcohol must be considered as an explanation of the modus operandi of the method, for it is not unusual to see an improvement in the tone of the sphincter and immediately following the injection.

Findlay has reported twenty-three cases treated by the above method; Alexander, ten, and Doctor Hiram Phillips of San Antonio, Texas, ten cases.

VENOCLYSIS OR INTRAVENOUS NUTRITION.*

BY

G. A. HENDON, M. D.,
LOUISVILLE, KY.

In every surgeon's practice there occur frequent demands for nutrition that cannot be supplied per viam naturalis, and also for fluid in larger quantities than the natural absorbing surfaces are able to transmit. Of the two, fluid is the more important and imperative. Therefore, numerous plans for the introduction of liquids into the circulation have been devised and put into execution. All of them have one common fault, which is inadequacy as to time and amount, and each has a special failing all its own. For instance, proctoclysis is fraught with uncertainty, discomfort, imperfect retention, and insufficiency as to amount and rapidity of absorption.

Hypodermoclysis has its most pronounced limitations in the quantity of fluid that can be administered without serious damage to the tissues by pressure of the fluid and resulting necrosis and abscess. Pain is also a complicating factor and a deterring influence; although the addition of novocain in the proportion of one-sixteenth of one per cent has proven of value in mitigating this evil, it does not abolish it. Saline infusions by their sudden entrance produce important disturbances of circulatory adjustments that are manifested by varying degrees of vital depression and the evidences of imperfect assimilation. The action of a saline infusion upon the system can be compared to the effect of a cloudburst upon the growing vegetation and the landscape of a rural community. In neither hypodermoclysis nor infusion can nutritive substances be combined with practical benefit, and their use by proctoclysis is of doubtful value.

Therefore, it is quite obvious that a method that will furnish the combined benefits of food and fluid in the crisis of a grave physical disaster is strongly demanded. To meet the requirement of food material for this purpose, Nature has turned a neat trick by supplying in great abundance a crystalline substance that polarizes a ray of light toward the right hand and which possesses the property of being a proximate principle to the blood and which qualifies remarkably well as a source of nutrition, with the added virtue of requiring only a solvent to render it immediately available for consumption in the support of the vital processes. I refer, of course, to dextrose, which is easily obtained and highly soluble in aqueous fluids.

As a proof of the capacity of the system for metabolizing dextrose, the observation of Woodyatt discloses the following interesting physiological statistics: A normal rabbit, dog or man can utilize between .8 and .9 grams of dextrose per kilogram of body weight per hour, for an indefinite time, without showing glycosuria. It can be introduced in solutions of as high as fifty per cent strength, without producing hemolysis or toxic reaction. Basing calculations on those facts it becomes established that a man weighing 70 kg., when resting quietly in bed, may receive 63 grams of dextrose by vein per hour, without glycosuria. Since each gram of dextrose has a food value of 4 calories, he would receive 252 calories per hour, or 6048 calories per day. Assuming that his resting requirements are 3000 calories per day, he is getting double his physiological requirements when at rest, or enough to cover the caloric expenditure of the same man during heavy physical exertion. These facts alone are sufficient to prove that intravenous nutrition with dextrose is a feasible clinical proposition, and the idea that the glycogenic function of the liver is indispensable for the utilization

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of glucose or that it is in any sense necessary as a barrier to prevent sugar absorbed from the bowel from being lost in the urine, is definitely laid at rest.

In view of the fact that an abundant fluid supply is essential in the treatment of toxemias, both of known and unknown origin, because it serves the double purpose of diluting the toxin and overcoming tissue dehydration, it seems more desirable to employ solutions of low concentration and large volume. Matas recommends a 5 per cent solution of dextrose. The menstruum may be Fischer's, Ringer's, or Locke's solution, or normal saline, and should be made in distilled sterilized water freshly prepared every 24 hours. My own experience has been confined to normal saline as a vehicle. It has seemed that a gradual flow possesses decided advantages clinically over sudden introduction and we have used that method exclusively, for reasons already mentioned. A very satisfactory rate, determined clinically, is 60 drops per minute or approximately 240 c.c. per hour. Administration at this rate can be sustained for 192 hours, or 8 days and nights, if necessary, as was demonstrated in a personal case. At this rate, allowing for unavoidable interruptions and variation in the flow, we found that about 6000 c.c. were actually delivered to the circulation in 24 hours. If a 5 per cent solution is used, there would be 300 grams of dextrose delivered into the blood-stream in 24 hours. On a basis of 4 calories to each gram of dextrose, the patient would receive 1200 calories per day, which appeared in our clinical experience sufficient to sustain the vital powers. If, however, it becomes evident that demands are not being adequately met, the dextrose content may be raised to 10 or 20 per cent with perfect propriety. I have not found this necessary in actual experience, but I would not hesitate if my patient's vitality showed any signs of waning. My conviction is that to increase the dextrose percentage would be more desirable than to enhance the rate of flow.

Certain details concerning the technique of administration are of sufficient importance to merit special notice. Complete sterility of the infusion must be assured, and the dextrose must be in perfect solution. The temperature of the fluid when it reaches the circulation must be within the limits of 100 and 110° F. Evidences of supersaturation should be watched for; some of the signs that the patient is getting too much fluid are increased lacrymal secretion and edema of the eyelids, and hypostatic pneumonia. I have never witnessed any of the above admonitions of danger, but I can readily appreciate their importance, nor have I seen either thrombus or embolus associated with the application of the method under discussion, although it is easy to conceive how such a complication might arise. In all my cases occasional chills occurred, accompanied by rather high excursions of temperature (105° F.), but were not followed by perceptible depression or other evil consequences. The reasons for this disruption have so far baffled the knowledge of clinicians and research workers alike, but all are agreed that they have no alarming significance and are not to be taken as a contraindication to the continuance of the treatment.

In one of my cases severe headaches were complained of when the rapidity of the flow was unduly increased. The time limit seems to be indefinite. My own experience seems to indicate that the treatment may be persisted in until complete reëstablishment of the vital powers has been accomplished. The apparatus for administration must meet two primary requirements: it must be sterile, and it must keep the temperature of the solution between 100 and 110° F. It is very desirable to obtain these essentials with as much simplicity as possible. I have been able to do this by employing a two-pint thermos bottle for a container. This can be sterilized by keeping it filled with Dakin solution when not in use and rinsing with hot sterile water before filling with the intravenous fluid. The thermos bottle will maintain the temperature of the fluid at whatever point it is placed in the bottle. I find about four feet of tubing to be a convenient length for conveying the fluid to the vein. I also discovered that at ordinary room temperatures the fluid en route will lose about 5° F. per foot; in a distance of four feet it will therefore be reduced in temperature 20° F. This loss can be met in three ways, by using stethoscopic tubing which, on account of its thickness, retains heat; by passing the tube beneath the patient's body and thereby taking advantage of the natural warmth of the body (if stethoscopic tubing is used it will not be sufficiently compressed to interrupt the flow), and by beginning with a higher temperature than is needed in the reservoir. For example, if we expect to deliver the fluid in the vein at 100° F., it is placed in the bottle at 120° F.

I find these simple measures are mose practical and equally as efficient as the more complicated warming devices that are sometimes used. The entrance to the vein is quite an important factor and deserves special consideration. Any accessible vein of sufficient size is feasible, but I have found that the ones near the bend of the elbow are the most convenient. My first work was done by puncturing a prominent vein with a

needle made for that purpose, but found it necessary on account of several objections to devise a special cannula that serves the purpose with admirable facility. It was found that in introducing the needle, which has the opening at the point there is liability of it becoming plugged by the tissue it traverses on the way to the lumen of the vein. It was also found difficult after the needle had entered the vein to secure its retention. Both the voluntary and involuntary as well as the passive movements of the patient resulted frequently in its dislodgement, and great difficulty was always encountered in its reintroduction. To eliminate these difficulties I devised a cannula, such as is shown herewith, and find it entirely satisfactory. It has two openings laterally situated and two shoulders, one over which the vein may be cuffed to hold it in position, and the other fits beneath the suture line in the skin and adds to the security of its position. The end is blind to prevent plugging and slightly beveled to admit of ready penetration through a slight niche in the vein, but not sharp pointed so that penetration of the opposite vein wall is avoided. These instruments are made in assorted sizes to apply in veins of varying diameters and are gold plated to resist the erosive effect of the sanguineous fluid.

The method I have employed is to expose a vein under local anesthesia, introducing the cannula beyond the first shoulder, with the obturator in place, tying the vein above the shoulder with No. 0 plain catgut. The obturator is then removed, to be certain that the cannula is inside the vein; if it is, the blood will flow freely, and the obturator is then replaced and the skin sutured over the second shoulder. In the meantime the thermos bottle has been filled and a glass bulb, like those used in proctoclysis, to render the drip visible, has been joined in the tube about ten inches from its attachment to the bottle, and a glass irrigating nozzle on the lower end. A section of rubber catheter from six to eight inches long is attached to the small end of the glass nozzle and the other is joined over the exposed end of the cannula. Some convenient form of clamp is placed on the tube near the bottle and so adjusted as to regulate the rapidity of flow by turning a screw. The air in the tube should be expelled by allowing the liquid to flow before connecting with the vein. After the connections are all made the solution is turned on and allowed to run in a steady stream for a few seconds to give it impulse, after which, by tightening the clamp, the rate can be regulated to whatever speed is desired. Sixty drops per minute has appeared to me to be the most favorable rate. The next step is to secure the attachments so that the movements of the patient will not loosen them or cause any pull on the cannula. The tubing, including the glass nozzle, is laid along the forearm, to which it is secured by encircling the arm with strips of adhesive plaster about one inch wide and two or three inches apart.

A gauze dressing is placed over the incision and a padded splint extending from the shoulder to the finger tips is bound with bandages to the posterior aspect of the extended arm. This prevents involuntary movements, especially flexion of the elbow. The bottle containing the fluid is hung upon a stand at a convenient height and convenient distance from the bedside. A special nurse is almost a necessity in order to keep the bottle filled and the temperature to the required degree. I insist on the use of a thermometer to ascertain the temperature of the fluid in the bottle, and advise that it be 120° F., thus allowing for loss of heat in transit.

I regard the main indications for venoclysis as being any form of grave collapse, grave toxemia, prolonged shock, or serious dehydration from any cause. I have used the method in the following conditions: one case of virulent pelvic infection and hemorrhage, following removal of a tubo-ovarian abscess and plastic work on the cervix and vagina; one case of intestinal paresis following delayed operation for obstruction; one case of emesis gravidarum; one case of uremia; one case of ruptured bowel, and one case of virulent puerperal infection following operation. In each instance, the use of venoclysis was begun after the usual remedies had been tried and had failed and the patient's condition seemed hopeless, hence the mortality was necessarily very high, but not discouraging.

CASE REPORTS.

Case No. 1.—Mrs. B. was operated for large bilateral tubo-ovarian abscesses, and laceration of the cervix and perineum. The uterus was large, soft, and succulent. Seven days after operation there occurred a very alarming hemorrhage from the uterus, the patient manifesting all the signs of sudden depletion. She became cold, clammy, and pulseless. The hemorrhage was controlled by packing and the glucose drip installed, a needle being used to establish connection with the vein. At the end of forty-eight hours the needle became dislodged, but the patient had shown so much improvement that no effort was made to reëstablish the treatment. This patient showed signs of grave sepsis from the beginning, and finally recovered after extensive sloughing of the abdominal wall, that necessitated secondary suturing.

Case No. 2, was that of a patient operated June 2, 1924, for a neglected intestinal obstruction. The strangulated intestine was gangrenous, and sixteen inches of it was resected, a Mikulicz operation being done. The patient was in profound shock when returned to bed and life was despaired of. We installed the drip and continued it for eight days and

nights (192 hours). In this case, I used the cannula, heretofore described, with great satisfaction. I am sure this patient's life was saved for the time being by this procedure.

Case No. 3, was a patient of a colleague, who was *in extremis* from emesis gravidarum. All the usual and some of the unusual remedies had been tried without avail. The glucose drip was instituted, and the vomiting ceased and the patient retained food, but on the third day she had a severe chill which alarmed her physician so much that he discontinued the treatment. The patient relapsed and died several days later.

Case No. 4, was that of a man sixty years old, who at the age of ten had undergone a perineal lithotomy which resulted in the establishment of a rectovesical fistula that persisted throughout his life. He passed urine and feces alternately through his urethra and rectum as long as he lived. Both ureters and kidney pelves were solidly encased with calcareous deposits. In addition, he had two good-sized stones in the gall-bladder, which he insisted on having removed, since they were clearly demonstrated by the *x*-ray. Two weeks after their removal, he began to show signs of coma. The drip was begun and as long as it was continued he was bright and appeared normal, but with the slightest interruption he would lapse into unconsciousness.

This state of affairs was maintained for a week, when it became apparent that no permanent results could be accomplished. The treatment was, therefore, discontinued, with the return of coma and death resulting in a few days.

Case No. 5, occurred in the practice of colleague and was one of traumatic rupture of the bowel, which had been unrecognized until too late to hope for recovery. The treatment was instituted a few hours before death. It seemed to have no effect upon the course of the accident.

Case No. 6, was one of uterine sapremia from retained placenta, following abortion. This patient was *in extremis* when the treatment was commenced, and died about twelve hours later.

I realize that in this group of cases the high mortality is the most conspicuous feature. This fact is, however, mitigated, when one considers that the patients were all despaired of and that all other measures had been tried and had failed, before the venoclysis was instituted. We feel justified in the conclusion that the intravenous method of introducing fluids and nutriment into the body, during grave physical crises, when the powers of absorption are abolished or suspended, is practical, and that the procedure herein proposed, is safe, simple, accurate, and prompt. Up to the present time no untoward accidents have been reported in connection with its use. The indications for the employment of venoclysis are numerous and quite obvious, and there are ample grounds for expecting its universal application.

ABSTRACT OF DISCUSSION.

Dr. Q. B. Lee, Wichita Falls: In certain cases of pernicious vomiting of pregnancy, there seems to be a deficiency in the metabolism of carbohydrates, which results in acidosis and vomiting. They react upon each other, setting up a vicious cycle. In these cases glucose and insulin often act miraculously.

Dr. S. C. Richardson, Dallas: Dr. Hendon has certainly given us a better method of treating the extremely sick patient than to give the solution all at one time. We will save many lives if we will use his method in the bad cases. Severe toxemias and continuous vomiting, postoperative and otherwise, will surely all be better treated by this method than by giving larger quantities at a time at intervals, to be thrown off quickly, and often getting reactions, etc. By employing the duodenal tube to drain off the bile, intestinal contents, gas, etc., together with the continuous intravenous sugar or saline solutions, as described by Dr. Hendon, we will save many lives.

Dr. Chas. H. Harris, Fort Worth: This is an interesting subject—an old thought brought out in a new way. I believe there is very little absorption from the duodenum or jejunum. We know that absorption takes place most readily from the colon. Crile says that fluid by the vein soon gets into the peritoneal cavity. We tried this on 100 dogs, weighing from 8 to 14 kilos. We gave these dogs as much as 2000 c.c. without any of the solution appearing in the peritoneal cavity. We have given 2500 c.c. to dehydrated patients. All tubes and containers should be boiled in distilled water. I believe this will greatly reduce the reactions. We give these solutions at 110° F., the temperature being continuously watched and read from a thermometer in a hollow tube through which the solution flows. This treatment is good after hemorrhages. These solutions may be given in three ways: the least important is protoclysis, the next in importance is hypodermoclysis, and the third and most important is the intravenous.

Dr. J. S. Wooten, Austin: That glucose intravenously is an important measure in all cases of dehydration and septicemia is too well known to the profession to require debate. Every surgeon and physician doing hospital work has found it at times to be a life saving measure. The argument in favor of the continuous use of glucose, and the method of its administration described, are peculiar to Dr. Hendon, but it occurs to me that it would be quite difficult, in some cases, to carry out his methods. In his paper, while discussing the different methods of the introduction of fluid into the body, he failed to mention one method which is always reliable, always possible to carry out, and, if properly used, will meet all of the indications for the introduction of fluid into the general system. By the introduction of a duodenal tube, or some modification thereof, glucose, or glucose in connection with bicarbonate of soda, or with normal salt solution, can be given *ad libitum*, and the tissues rapidly absorb the solution, as will be manifested by improvement in the patient's condition, the increase in the volume of the pulse, and the increased elimination, as evidenced by the urinary flow and the perspiration.

Dr. W. H. McKnight, Fort Worth: Glucose intravenously is very important, especially in cases of acidosis. Glucose is the only food that can be utilized intravenously. "Fats are burned in the flame of the carbohydrate," so that glucose is doubly important, removing from the blood, as it does, the acetone bodies which are the toxic products resulting from faulty fat metabolism. However, under certain conditions the body does not burn the glucose readily without the addition of insulin, presumably because the pancreas is for some reason not properly functioning. In such cases glucose plus insulin is indicated. I recall a recent case of pernicious vomiting of pregnancy in a young woman who came into the hospital late in the afternoon, with considerable acetone in the urine. Operative procedures were contemplated for the next morning but in the meantime she was

given glucose and insulin intravenously. There was such a quick and marked response to this treatment that no interference was necessary and the patient made a rapid recovery.

Dr. Hendon (closing): All sick people are suffering from a poison of some kind and there are three cardinal principles underlying their treatment, namely, (1) elimination, (2) dilution, and (3) the antidote. The one most frequently employed because it is most easily obtained, is dilution. All toxemias result in dehydration of the tissues, which is generally the immediate cause of death. I feel confident that the slow and continuous administration of fluids directly into the vein for the purpose of diluting the toxins and supplying the necessary amount of fluids is superior to their sudden and copious introduction, because the cells of the body are permitted an opportunity to gradually adjust themselves to the artificial source of nutrition.

Regarding the use of the duodenal tube, I think it is an excellent way to drain the gross accumulation of morbid secretions, but a very poor way to convey to the blood stream the remedial measures calculated to meet the extraordinary demand for fluid.

THE TREATMENT OF ACUTE BRAIN INJURIES.*

BY

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Acute brain injuries are usually associated with fracture of the skull, though there may be severe brain injury without any damage to the skull. Fractures of the skull may be simple or compound, and these in turn may be depressed, comminuted, stellate, etc., and with pieces of bone driven into the brain. In the treatment of these cases, the first and most important consideration is the treatment of shock. If there is a large open wound, it should be rapidly and gently cleansed and a few sutures put in to control hemorrhage, and the ordinary treatment of shock should then be carried out. The head should be lowered, external heat applied, hot enemas given, and, if deemed necessary, stimulants such as camphor in oil or caffein sodio-benzoate given as needed. The patient should not be disturbed or handled in any way until the signs of shock have subsided. The pulse and blood-pressure should be taken every hour and, of course, this can be done without disturbing the patient. When the pulse comes down to around 100, the blood-pressure rises to 120 or 130, and the patient becomes conscious, we feel that the patient has reacted from the shock and should recover under medical treatment, or what some please to term the "expectant treatment." This class of cases probably comprise from 60 to 75 per cent of all head injuries. The expectant plan of treatment is rest in bed, an ice cap to the head, a moderate dose of epsom salts by mouth daily, and a light diet.

If the patient does not react so promptly to antishock measures but remains comatose, then one's resources may be taxed to the utmost to decide which procedure to follow. If in addition to being comatose or semiconscious the patient is irritable to external stimuli, a complete neurological examination may be made to determine if there are localizing signs. If there are none, then, with the patient's head lowered, a lumbar puncture should be done and the pressure of the cerebrospinal fluid carefully measured with a mercurial manometer. If bloody fluid is obtained or the pressure is above 14 and under 18, from 10 to 20 c.c. of spinal fluid should be removed. If the pulse and blood-pressure remain about the same and the temperature does not go above 100° F., this procedure should be repeated in from 6 to 12 hours. In this class of cases, the patient will rest better and may rouse up and answer questions shortly after the lumbar puncture. When we obtain this result we feel that the lumbar puncture is of benefit. If at this stage the patient will swallow anything, a large dose of magnesium sulphate should be given by mouth and the ice cap applied to the head.

In another class of cases, the symptoms do not improve and the blood-pressure begins to rise and the pulse rate to drop. At this stage, careful examination of the eyegrounds should be made for papilledema. If this is present, a subtemporal decompression should be done without further delay. It has been my experience, however, as well as that of others, that this sign is unreliable and that patients have died from increased intracranial tension, without signs of papilledema. Sometimes, we do not see these cases until two or three days have elapsed since the injury. Then we may be confronted with a comatose patient whose pulse is as low as 50 and whose blood-pressure is above 150 (varying according to the age of the patient), and with papilledema and a temperature less than 100° F. These are signs of medullary compression and if this pressure is not soon relieved, it will result in medullary edema and certain death. Such a patient should have an immediate decompression operation. A lumbar puncture may be done to measure the pressure of the cerebrospinal fluid, but no fluid should be removed on account of the danger of hernia into the foramen magnum and sudden death.

If there is a scalp wound, it may now be reopened and the skull explored for fracture. If there is comminution of the bone, the loose pieces should be removed and the broken edges of the skull smoothed with rongeurs. If the opening in the skull is large, it will usually afford sufficient decompression. If, however, the area is small and the brain is

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tense and under high pressure, then the regular subtemporal decompression should be done. All depressed fractures should be elevated or, preferably, the pieces of bone removed as soon as the patient's condition will permit.

In severe brain injury, the real underlying pathological condition is an edema of the brain. From this can be seen the futility of trying to cure all cases by lumbar puncture. This cerebral edema is best relieved by a decompression operation. This probably accounts for the fact that many years ago it was noted that compound, comminuted fractures of the skull that were operated and in which large areas of the skull were removed, largely recovered. The dura in these cases would be so lacerated that it could not be sutured and this served as a very good decompression and, barring infection, most of these cases recovered.

The mild cases that improve under the so-called conservative treatment, should be kept in bed for a varying length of time after the acute symptoms have subsided. This, in my opinion, will be from two to six weeks, depending upon the severity of the symptoms. The late John B. Murphy said that a patient with a fracture of the skull sufficient to produce unconsciousness, should be kept in bed for six weeks. I believe if all of these patients were kept in bed that length of time, that there would be less headaches, epilepsy, etc., as sequelae. During the time they are in bed, the brain should be at rest as well as the body, hence they should not be allowed to read and they should be isolated, if possible. They should have a light, nourishing diet, free of meats, and the bowels should move daily.

The severe cases that require a decompression may possibly be let out of bed earlier, but two or three weeks' rest in bed will do them no harm. Their diet should be the same as the mild cases receive. After they are allowed out of bed they should be advised to lead a quiet, retired life, keeping away from crowds and excitement of any kind, and should not work for at least six months. If the patient is a laboring man, he should not return to his previous occupation for one year. Head injury cases are very susceptible to the hot sun and if compelled to work in it, they should adopt a type of head dress similar to the tropical helmet or the high topped Mexican hat.

CASE REPORTS.

Case No. 1.—A young man, aged 19, was injured by being thrown from a motorcycle and striking his head on a pavement. When seen a few minutes afterward, he was in deep coma, completely relaxed, and with cold extremeties. He vomited profusely immediately after the accident. His pulse was 80, of fair volume and regular. He was sent to Parkland Hospital and put to bed with the foot of the bed elevated, and the patient surrounded with hot blankets, etc. The blood-pressure ranged from 125 to 130. The accident occurred about 7:30 a. m., and by 5 p. m. the patient had reacted from the shock, and then with the patient's head still down, a lumbar puncture was done and 20 c.c. of bloody fluid was removed. His pulse gradually came down so that now it was about 60 and the temperature was 99° F. The patient was irritable and fought any examination. A careful neurological examination did not show any localizing signs. The patient's face was swollen, but there had been no bleeding from the ears or mouth or nose. During the night, the patient was given 5 ounces of magnesium sulphate, but no bowel movement was obtained. Eyeground examination the next morning, or 24 hours after the injury, did not show papilledema. Thirty cc. of bloody spinal fluid was removed and the pressure by the mercurial manometer was 16 mm. His temperature during the night rose to above 101° F., and his pulse came up around 90. At 6 p. m. the second day, the condition was about the same, and 20 c.c. of cerebrospinal fluid was removed, which was considerably clearer, and the pressure was still 16 mm. He was at this time very irritable and cried out bitterly during the lumbar puncture, in fact, so much that his father informed us that we could not torture him that way again. From this time on there was gradual improvement, and a dose of calomel of 20 grains followed by 2 ounces of magnesium sulphate, was sufficient to produce one bowel movement. The nasal half of the left disc developed a slight haziness, but the patient continued to improve so that on the fifth day he was conscious. He was allowed to go home in an ambulance on the eighth day, and kept in bed for six weeks with the after-treatment carried out as outlined above.

Case No. 2, is another case illustrating the severe pressure type. A boy 12 years old was injured by being thrown from a buggy and striking his head on a rock. Immediate unconsciousness ensued. I was called in consultation some 60 hours afterward. At this time, examination showed him to be irritable, drawn up in the so-called jack-knife attitude, with the right eyelids swollen and discolored with blood, and a small scalp wound which had been sutured. His pulse was 48 per minute, temperature about 100° F., and respiration 10. The eyegrounds showed marked papilledema. He was taken to the hospital and an immediate subtemporal decompression was performed. Improvement was noted within a few hours and he gradually came out of the coma so that by the end of a week he was conscious and the bulging of the decompression area was beginning to subside. At the end of ten days the bulging had subsided to the level of the skull, and he was allowed to go home and the parents instructed, as outlined above, on the after care.

Case No. 3, illustrates the home-made decompression. A large negro man was struck in the back of the head to left of median line with the butt of an axe, which rendered him unconscious immediately, and when seen some four hours afterwards he was still unconscious but had evidently reacted from the shock, as he was warm and his pulse was 80, of good volume and regular. There was a small scalp wound at the site of injury and a depression could be felt in the skull, and several loose fragments were protruding from the wound. He was transported to the hospital and an immediate operation performed. An incision was made over the depression, or rather the wound was enlarged, and the depressed area of the skull and all loose fragments of bone were removed. The edges of the bone were smoothed with a roungeur

so that when we finished there was an opening in the skull nearly three inches in diameter and the brain had begun to pulsate. No attempt was made to close the dura. Within 24 hours this negro was conscious and went on to a good recovery. This case also illustrates very well what should be an axiom in the treatment of these cases, namely, that as soon as the period of shock is over with, the depressed area of skull should be removed. If the depressed area is small, then a subtemporal decompression may be performed in addition.

BURNS*

BY

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Burns of all types occur in railroad shops, the most common being slight, usually from coming in contact with hot metal; the most serious being scalds from hot steam. Scalds are probably more serious, area for area, than other burns. However, electrical flashes are deeper, slower in healing and cause more cicatrization than other types of burns. Scalds are usually more extensive, but an electric flash with the attendant ignition of clothing will frequently make extensive burns. This is true also of gas ignition; however, burns from gas ignition, as a rule, are not so deep and heal with greater rapidity.

Burns are classed as of first, second or third degree according to the depth of tissue involvement; first degree being those simply producing a hyperemia; second degree being where the epidermis is lifted, forming blisters, and third, where the deeper tissues are involved. To these should be added a fourth degree burn as the third degree covers too much territory and does not adequately allow a clear conception of the depth of involvement. Fourth degree should only include burns where there is a necrosis of tissue or where a necrosis will occur. All burns except those of first degree should from their very inception be treated as surgical conditions.

It has been stated that burns involving one-tenth of the body surface are serious, and that those involving one-third are often fatal, while those involving two-thirds are almost always fatal. Several facts, however, must be taken into consideration in making an early prognosis (which it is best not to make, but a surgeon is often compelled to do so.) The type of individual, the causation of the burn, the extent as well as the depth, the ability to stand shock, as well as the early blood and urine pictures, are factors which lend aid. Unless death occurs in the first twenty-four hours there is usually hope, although the recovery may be gradual.

Minor burns are best treated for the first few days with picric acid ointment which contains a local anesthetic and gives very prompt relief. In a few days the treatment can be changed to zinc stearate powder which has a tendency to dry the area and hasten healing.

First aid in serious burns is a matter of great importance. The patient should be covered with a clean sheet, immersed in cold water, or in hot water, if during the winter season, with a blanket over this to retain the body heat. He should be placed in a closed conveyence and taken to the hospital, as the wind irritates a burned patient and causes added pain. It is not necessary to take off the clothing unless the burn is due to a scald or unless the clothing is on fire. Recently, a case came under my observation that was brought into the hospital suffering so much that he did not know that the seat of his trousers was on fire and that his necktie was also burning a hole in his chest. These wounds caused incapacity for a number of weeks after the initial burns had healed.

Primary shock is a frequent cause of death; often the patient never rallies, but succumbs before any other direct effect could be expected. This being true, first attention should be devoted to combating shock and not adding thereto. If the pulse is weak a hypodermic of caffeine citrate is given.

When the patient arrives at the hospital he is first given a hypodermic of morphine ¼ gr., atrophine 1/150 gr., to relieve the pain and counteract vasomotor paralysis. The clothing is removed if the patient is not in too great shock. If such is the case, he is put to bed and either an electric cradle or electric blanket is used to restore the body heat. An intravenous infusion of glucose and soda is given to restore fluids and combat shock acidosis, and a coffee drip started if pulse is weak. The shock having been partially overcome, the clothing is removed, being preferably cut away. If the parts are badly soiled from dirt and foreign substances, the body is immersed in a boric bath which gives ease and at the same time allows dirt and soluble substances to be removed. Another good method is to cleanse the parts with gasoline which is a good solvent, not very irritating and at the same time a first class antiseptic. The type of treatment best suited to the individual case is then instituted as follows: Wet dressings of normal salt or 1 per cent picric acid; ambrine spray; electric light cradle, or open air.

Picric acid in 1 per cent solution on gauze dressing, the gauze being constantly moist, is one of the best treatments for all types of burns; it alleviates the pain and at the same time is antiseptic to such a degree that it

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prevents secondary infection. I have never seen a case of picric acid poisoning and the objection incident to the pain caused by the removal of the dressings, can be overcome by keeping dressings moist and thoroughly soaking before removal. Normal salt is also useful but does not have the antiseptic value of picric acid. A few years ago acetic acid was used in a number of clinics but has not proven very efficacious in my hands.

Ambrine or paraffin spray treatment is of great value in extensive burns, prevents scar formation and gives immediate ease in most cases. It is rather difficult to use at times, in that the spray has a tendency to get clogged due to the precipitation of resinous products and patients often object to the heat of spray when it is being applied. If infection occurs, it should be discontinued, as it forms a covering for the infection.

The electric cradle is especially useful in painful body burns, especially those of the back, as the patient needs no dressing, simply lying with the burned areas exposed, the electric light supplying the lost body heat and at the same time drying the burned areas, thus preventing crust formation and promoting healing. This is an ideal method of treatment in extensive burns, as the patient secures more comfort, not being subjected to the pain of dressings, as it is only necessary to change sterile sheets as they become soiled. In addition to this, there is very little scar formation as infection rarely develops. In case there are infected areas these should be cleansed with boric or salt solution, and either mercurochrome 2 per cent or argyrol 5 per cent painted on the infected areas.

Burns which have become infected are very dangerous; in fact, if the patient survives the first twenty-four hours, infection is the chief cause of death. In severe burns there is usually a flare up the second or third day, due probably to decomposition products being absorbed through the blood. The temperature, pulse and respiration all rise; there is increased restlessness, or on the other hand there is increased drowsiness and stupor. The urine shows increased albumen, and acetone shows for the first time. The patient has ups and downs as long as sloughing of tissue takes place which is not quickly cleaned up, these areas should receive immediate attention. The slough should be removed by debridement. The parts should be washed with normal salt solution after which they are gently dried and dichloramin T, 2 to 5 per cent, applied, which is very effective in eliminating infection.

The open air treatment, advocated a number of years ago, is good only in superficial burns where powders, the best of which is zinc stearate, are dusted on, helping to keep out dust and foreign matter. In severe burns this treatment is only to be condemned as a large thick scab of exudate forms, which is a breeding place for bacteria; and when healing does occur, the scar tissue is in great ridges.

The location of burns plays an important part in the treatment instituted, as it is advisable to prevent cicatricial tissue, which is not only unsightly but also often occurs at such points as to prevent free use of the parts. This is especially true of the neck and axilla. Frequently, a little attention paid to the position of these parts, with judicious early strapping, can overcome this tendency. Burns of the hand frequently develop web fingers; adhesive strips placed between the fingers will often prevent this, thereby avoiding late plastic operations which otherwise become necessary. Burns covering a broad area should be strapped early, using strips 1/8-inch in width, with cross-strapping which forms small openings to allow exudation. These straps can be removed as often as necessary, but it is best to change them as little as possible. The outer dressing of gauze, however, should be changed daily as long as there is free serous exudation; this does not interfere with the straps. Frequently, it is best to remove the straps for a few days, applying diamason ointment, which hastens granulation and reapplying the straps after a few days. By this method very little skin grafting is necessary; if it does become necessary, the Thiersch method should be used, the grafts being held in place by the adhesive straps which give the firm pressure essential to the take of graft. These straps are left on for from ten days to two weeks, the gauze being removed and the pus and exudation which have escaped through the interstices of the straps are gently sponged or blotted off. It is surprising to see the number of grafts which take when this method is used.

CONCLUSIONS.

There is no standard treatment for burns. Each case should be treated individually, using the method most suitable for the particular type of burn or the stage to which the burn has progressed, and always attempting to use a treatment which is efficient but at the same time the least painful to apply and to withstand.

The mental attitude of the patient should receive due consideration for these patients need boosting at every turn, as they have a tendency to become despondent.

ABSTRACT OF DISCUSSION.

Dr. Thomas B. Taylor, Bastrop: I want to report two severe burn cases and give my methods of treatment. One case was that of a man who had cut his hand and saturated the dressing with turpentine. While lighting a cigarette, the dressing caught on fire. It was eight or ten days before I saw the case and when it reached me it was in the infected stage. The skin was completely destroyed on both the anterior and posterior sides. The cut healed and I removed the skin which left the hand quite raw. I used ordinary paraffin and have never seen anything get well as quickly as this did. The only bad feature about it is the application. The patient could hardly bear to have it applied. When melted, paraffin is too hot to apply without pain.

Another man had a burned raw area of at least two square feet, and I knew that ordinary melted paraffin would be too painful, so I used a Park, Davis and Company preparation of paraffin which melts at 115 degrees. The man suffered no pain at all when it was applied. You can now cover the burned areas with three silver dollars.

Dr. S. P. Rice, Marlin: I want to tell you about a case I had about three years ago. A negro girl about 11 or 12 years of age received second and third degree burns of the shoulders, and between the thighs to the bend of the knees. I saw her frequently with the colored physician who was attending her. I told him that I did not see how she could get well. We gave her all the difference kinds of treatment we could think of. After using one kind of treatment for two or three weeks, I would suggest another. We tried everything except transplanting skin. This patient has no scars now and is going to school.

Dr. Hershall La Force, George West: A little messenger boy caught on fire, and his chest, face, lower limbs and arms were burned. I treated him for two or three months, but he died.

Dr. Jacob M. Frazier, Belton: Not much advance has been made in the treatment of burns. The old forms of treatment are still used. Whether a burn is of first, second or third degree, economy of treatment has to be considered. I have never yet found anything that was superior to vaseline and oil of salt. It prevents shock and infection, from which most patients die. I would like to know if any of you ever use oil of salt. It is another economical dressing. I bought a gallon last July and still have some left. It is a pretty good antiseptic, relieves pain, and heals burns quickly.

Dr. P. G. Bowen, San Antonio: Vaseline is an exceedingly pleasant and boric acid a soothing dressing. A 25 per cent ointment made of zinc oxide or boric acid cleanses and soothes at the same time. This is the best method of keeping extensive burns clean. This dressing is also easy to come off and does not stick.

Dr. M. W. Sherwood, Temple: Strapping is a treatment that promotes rapid healing of burns. We have used this method a great deal. It keeps down excessive granulations and leaves less scar tissue. Our experience with this method has been very satisfactory. Strapping can also be successfully applied over areas that have been previously skin grafted. Leave the straps on for a week or ten days; grafts are usually firmly adherent by that time if they live. We have noticed that perfectly healed grafts sometimes ulcerate and melt away after two or three weeks, particularly grafts upon the limbs. At first this puzzled us and we did not understand why it happened until we realized that the circulation in these newly granulated grafts was not properly established and that the dependent position decreased the circulation, destroying the grafts. Skin grafting on a limb must be firmly established before the limb should be permitted to assume a dependent position, and then only with an elastic bandage applied. It is a mistake to dismiss such patients too soon.

Dr. Ross Trigg, Fort Worth: Burns are improperly treated more frequently than any other injury or disease. They are essentially surgical, and the treatment should be based upon surgical principles. I wish to condemn one of the most popular treatments—the use of unguentine. It is perhaps the poorest method used. Its use should be restricted to burns of the first degree. It should never be used upon extensive second degree burns or third degree burns of any size, or else recovery will be delayed and excessive scars and contractions will follow.

No treatment is applicable to every case. We must remember that the object of any treatment is to promote rapid healing and restoration of the burned area to its normal condition and to secure the minimum scar tissue and contractions.

The paraffin treatment is the best in extensive burns of the first and second degree. However, the commercial paraffin should not be used because it is too hot to apply without pain. The modified commercial paraffin preparations melt at a much lower temperature and can be used with comfort. When the true skin is destroyed, skin grafting is necessary.

Dr. Colgin (closing:) In summing up, I wish to say that in my experience the three treatments that I have found best are: ambrine, electric cradle and picric acid.

Ambrine, or the paraffin spray, is of the greatest value in extensive burns. The electric cradle is the most efficient in painful body burns; it is comfortable and does away with dressings. Picric acid is one of the best treatments for all types of burns.

INTRACRANIAL HEMORRHAGE IN THE NEWBORN.*

BY
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Intracranial hemorrhage of the newborn is recognized as a common cause of infant mortality. Ehrenfest[1] states that traumatic lesions of the brain are present in at least 40 per cent of the stillborn babies, or those dying within a week of birth. Holt[2] claimed that at least one-third of the infants dying during parturition die of meningeal hemorrhage.[3] Holland showed, in an examination of stillborn fetuses, that a larger number died from complications of labor than from maternal or fetal diseases. Schwartz[4] places the incidence of cerebral hemorrhage as high as 65 per cent in infants dying under five months. Cameron and Osman[5] recognize this condition as by far the most common cause of death in the newborn or the stillborn. Foote,[6] of

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

1. Ehrenfest: Am. Jour. Obst. and Gynec., July, 1922.
2. Holt: "Diseases of Infancy and Childhood," 1916.
3. Holland: Brit. Med. Jour., March 3, 1923.
4. Schwartz: Munch. Med. Wochenschr, July, 1922.
5. Cameron and Osman: Brit. Med. Jour., March, 1923.
6. Foote: Jour. A. M. A., October 20, 1923.

Columbia Hospital, quotes Dr. Dublin as saying, "The benefits of good prenatal care are being lost through the breakdown of the obstetrical service."

These findings from widely separated clinics are corroborated by local observation. DeLee[7] estimates that 200,000 babies die annually in this country at birth or within four weeks thereafter. A study of these figures, in connection with the percentages that are given of infants dying from birth trauma, will give us some conception of the importance of this malady, and of the necessity of studying means for its prevention and for its early diagnosis and cure.

This condition was mentioned by Little in 1843; nineteen years later, in 1862, he gave the cause of cerebral spastic paralysis as due to hemorrhage in 75 per cent of the cases. Within the last ten years there has been an enormous amount of investigation into the pathology of this condition. Saenger[8], in 43 of his 48 cases, found that branches of the tentorial veins were involved. Schwartz found macroscopic evidence of hemorrhage in the majority of his cases. The lesions plainly showed the effect of delivery on the central nervous system. The hemorrhage may be cortical or deep in the brain tissue. The damage may be slight, in which event the recovery may be prompt without treatment, but Holt doubted if any hemorrhage case fails to show some final permanent injury. It may be severe, and then we see the cases with collapse, convulsions and spasticities; and if immediate recovery is made, we have to consider the possibility of more remote mental defects or paralysis. The "infant encephalopathies," referred to by Gordon,[9] include a great number of types of motor phenomena, from a slight disturbance of function to complete crippling. "In the intellectual development of these victims there is wide variation, from the simplest mental arrest to complete idiocy."

Syphilis, eclampsia and the other toxemias of pregnancy play a very small part in producing this condition. They are to be charged with many stillbirths and neo-natal deaths, but not with intracranial hemorrhage.

Asphyxia is responsible for cerebral hemorrhage in many instances. Sharpe,[10] Ebrenfest[11] and others claim that where labor is prolonged and there is continued congestion of the weak terminal vessels, rupture frequently results. The majority of Henkel's[12] series of cases were from asphyxia. He claims that the contraction of the uterus over the breech when the head is in the vagina, is one of the main causes of the diminution of the placental area; and he joins DeLee[13] in objecting to the long delay of the head upon the perineum. Spasm of the os may play a part in producing asphyxia. Pressure on the cord is another cause.

Many authorities claim that strenuous efforts to resuscitate the asphyxiated child may result in the rupture of a vessel. This is especially true if the cerebral vessels are already engorged or if there is present a slight rupture. Swinging the baby with head downward would tend to further distend the vessels and contribute to a rupture, or to increased bleeding from a tear already present.

The blood dyscrasias probably play a smaller part in the production of these hemorrhages than is generally supposed. Sherman and Lohnes,[14] in an exhaustive study, found a blood dyscrasia in the newborn characterized by delayed clotting; but it does not develop until after the second or third day. Since most of these cases develop earlier than that, we could hardly claim that a tendency to bleed takes a leading part in the production of this pathology. This view is held by Sharpe,[15] Conkey[16] and many others. Conkey says, in effect, we should not hide our obstetrical errors behind that bloody cloak.

The traumas form the great class of cerebral injuries in which we are particularly interested. Included in the causes of trauma are all the dystocias, contracted pelvis, abnormally large fetal head, rigid cervix and soft parts—the last two deserving special mention in the case of prematures. Too precipitate labor is included in this group, and too much prolonged, severe labor. Either of these may cause overlapping of the cranial bones and damage to cerebral veins or even sinuses, or may cause excessive moulding and tension on the septa, with tears resulting. Improperly placed forceps or forceps used with too much force belong in this group. Pituitrin, a very deadly drug, the prime producer of precipitate labor, and the drug least respectful to a dystocia, emphatically belongs in this group.

The breech presentation is a most important cause of trauma. It has always been generally recognized that the breech is a very dangerous presentation for the child, and recent studies in the pathology of birth trauma have confirmed that view. Saenger[17]

7. DeLee: Practical Medical Series, p. 416, 1923.
8. Saenger: Monatschr f. Geburts u. Gynak, February, 1924.
9. Gordon: Am. Jour. of Obst. and Gynec., April, 1924.
10. Sharpe: Am. Jour. of Obst. and Gynec., August, 1924.
11. Ehrenfest: "Birth Injuries of the Chi'd."
12. Henkel: Zentrib. f. Gynak., January 28, 1922.
13. DeLee, J. B.: "Principles and Practice of Obstetrics," 10th Ed., p. 322, W. B. Saunders Co., Philadelphia.
14. Sherman and Lohnes, N. Y. State Jour. Med., April, 1923.
15. Sharpe: Am. Jour. of Obst. and Gynec., April, 1925.
16. Conkey: Arch. Pediat., April, 1923.
17. Saenger: Monatschr f. Geburts u. Gynak, February, 1924.

states that no mechanism of labor is so dangerous to the child. Holland[18] found tearing of the tentorium in 88 per cent of dead fetuses after normal breech delivery; 23 of his cases came to autopsy and only three failed to show tentorial lacerations. Pearson[19] finds that in breech deliveries the mortality is high and that shock and intracranial damage are responsible for most of them. DeLee, Williams and many others stress the high mortality from breech deliveries. Even statistics by Potter and McDowell[20] tend to confirm this fact; they report 2.3 per cent infant mortality with very skilled breech deliveries, against 1.7 per cent in the Chicago Lying In and the Montreal Maternity and against 1.3 per cent by Beck in New York. The last three clinics cling to the natural method when possible. Saenger states that if the aftercoming head can be delivered easily there will be no damage, but if there is any dystocia, either in the bony pelvis or the soft parts, there will be marked circulatory disturbance, the brain receives an increased blood supply, and any traction on the neck, mouth or jaw tends to increase the pressure of the blood in the sinuses and to increase the vertical diameter of the skull and to favor venous rupture and tears of the falx, or the tentorium, or the dura.

The premature baby is particularly liable to trauma because of the undeveloped bones of the head. Damage in such cases is not due to the pelvis but to the rigid cervix and soft parts and to excessive contractions of the uterus. The head has practically nothing to protect the brain from external forces, and there is increased fragility of the vessel walls and of the membranes. It has long been my opinion that cerebral trauma is the cause of many deaths in prematures, and since the increased recognition of the importance of cerebral damage has led to exhaustive postmortem studies of the brains of infants, the point is shown to be well taken.

The whole question of edema of the brain of the newborn requires further study. Cerebral edema is a well recognized condition in older patients, but, so far as I can discover, is only scantily discussed with regard to its influence on the newborn. Edema, asphyxia and hemorrhage very often go together. The symptoms of either might be confused with those caused by the other two.

How are we to prevent the occurrence of these conditions, or to reduce the incidence of them to the minimum? We have shown that one of their greatest sources is breech presentation. We may follow Pearson,[21] and, whenever possible, decrease the number of breech cases by external version, or by a strict limitation of the indications for podalic version. This is a disputed point, just now, but the opinion is held in common with such men as Saenger, Williams, DeLee, Beck, and others too numerous to name. It is also supported by the mortality statistics from many sources for many years. When a delivery by the breech cannot be avoided there should not be unnecessary haste. Traction on the infant should be gentle, for if any dystocia exists hyperemia of the head will result, and the possibility of rupture will be greatly increased. Properly placed forceps on the aftercoming head are indicated, rather than traction from below.

Pituitrin is responsible for many cases of birth trauma. Such is the opinion of many authorities. The use of this drug with the cervix undilated; with any kind of a contracted pelvis; in too large doses which produce excessive contractions of the uterus, or too rapid expulsion through the soft parts; or with a premature delivery with a soft bony structure of the head, produces conditions exactly favorable to cerebral edema and hemorrhage. The indications for the use of this drug have been well discussed in the literature; with our increased knowledge of the frequency of cerebral trauma should go also an increased respect for the power of this agent.

Asphyxia may be partially obviated by watching the unborn baby's heart-beat. A slow heart, below 100, during and between pains, calls for immediate intervention, according to Bartholomew.[22]. If the heart slows to 100 during uterine contractions, it is an indication that the baby is in danger of asphyxia, and we should prepare for an emergency. Gentle manipulation of the asphyxiated child is indicated. As before stated, too vigorous efforts at resuscitation are frequently damaging. DeLee advocates the thorough cleansing of the air passages and the use of a trachial catheter and plenty of pure air for this condition.

The delivery of the premature requires special care if the brain is to escape injury. The rigid cervix is probably the chief source of damage and should be manually dilated early in the labor. If the soft parts are firm and unyielding they may also be dilated. Forceps should not be used. Severe uterine contractions may be lessened by the use of morphine or some other agent. Pituitrin is contraindicated. If the cervix or the soft parts are very resistant, either vaginal Caesarian section, or episiotomy, may be done.

18. Holland: Brit. Med. Jour., March 3, 1923.
19. Pearson: Surg., Gynec., Obst., December, 1923.
20. Potter & McDowell: N. Y. State Jour. Med, April, 1923.
21. Pearson: Surg., Gynec.. Obst., December, 1923.
22. Bartholomew: Am. Jour. Obst. and Gynec., October, 1923.

The hemorrhagic tendency must be considered, though, as before stated, its importance has been overestimated. If the symptoms develop three days or later after birth, it may well be thought that the tendency to bleed may be responsible. Graham[23] seemingly established the fact that delayed clotting can be produced by chloroform in the newborn as well as by asphyxia. There is the possibility of a deadly trio, traumatic injury of a vessel, asphyxia and a tendency to bleed; or asphyxia, with engorged cranial vessels, which tends to produce a rupture and also delayed clotting time. Sherman,[24] as before stated, claims that delayed clotting does not develop until the second or third day in uninjured infants. That would seem to justify the statement that the tendency to bleed is rarely the primary cause of intracranial hemorrhage. In suspected cases the clotting time should be determined, and if delayed, may be advanced by the use of serum, mother's blood subcutaneously, or transfusion.

The obstetrician's cue is gentleness and skill rather than rough manipulations tending to save time. Deliveries should not be too hasty or too much prolonged; and not rushed by agents known to be dangerous. To quote Chipman,[25] "The ideal labor is the spontaneous one, which is still the safest for the mother and child." Dystocias must not be overlooked. If we would save our prematures we must begin thinking of the problem before the head is delivered, and not depend entirely upon keeping it alive by good post-natal care. We will have to forego the fascination of the version. And we must give our patients more time and less pituitrin. Episiotomy, and low forceps carefully applied are less dangerous than prolonged natural pressure, but meddlesome midwifery is heartily condemned by DeLee and other great authorities.

While there has been much work done on the investigation of birth trauma by neurologists and pediatricians, and while men in those specialties are well equipped to handle such cases after development, the responsibility for early recognition of the symptoms of cerebral hemorrhage must rest upon the obstetrician. In very many cases the latter is the family physician, the only medical consultant available; he is in all such cases the first on the ground and the first to be in a position to discover when something goes wrong. Given a case in which the labor has been difficult or too precipitate, he may well be on the lookout for symptoms of increased intracranial pressure or of cortical irritation. In many cases these symptoms are so pronounced that they cannot be overlooked; in others, they are very mild at the outset, with the possibility of growing more grave a little later. There may be a refusal to nurse, a tendency to turn blue, pallor, low temperature, facial edema, a slow pulse, cyanosis, a tense fontanelle, disturbed respiration, twitching, and rigidities. The more severe cases may be asphyxiated and resuscitation may be very difficult; the breathing may be shallow and irregular and the pulse slow; convulsions may be present and are often continuous and uncontrollable. There may be rigidity of one or more extremities, or paralysis of the face; general rigidity and opisthotonus, strabismus and nystagmus are sometimes present. The symptoms do not always develop immediately, but may be delayed until the second or third day. Localizing nervous symptoms may be entirely absent. Some one or more of these symptoms will be seen where cerebral hemorrhage has occurred.

Drainage of the central spaces by lumbar puncture is the most efficacious treatment we have for the acute cases. It is said to be contraindicated in shock, but with the possibility of the symptoms of shock being largely due to edema of the brain, there is a doubt in my mind if drainage does not offer a better opportunity for recovery, even in very severe cases. According to Gordon,[26] lumbar puncture will not be of avail in the supratentorial cases, as the blood cannot easily reach the subarachnoid cavity. This leaves the question of edema out of account, even if we could be sure just where the bleeding had occurred.

Lumbar puncture is also recommended for diagnosis, as the symptoms are mild in many of these cases, and are very often overlooked and misinterpreted. The puncture is not difficult. Perhaps most failures are due to the natural tendency to use too small a needle: one almost as large as we use in adults will do no damage, will allow free flow of the fluid even when mixed with blood, and will obviate many failures. The puncture should be repeated as often as the symptoms may indicate. If the fluid is under considerable pressure it may be removed slowly, all the while watching carefully for shock. Observation of many spinal punctures has convinced me that it is a safe operation, and the child suffers no ill effects from it. I do not hesitate to puncture the ventricle if spinal puncture fails.

In a true "bleeder" it is conceivable that releasing the intracranial pressure might

23. Graham: Jour. Exper. Med., Vol. xv, p. 307, 1912.
24. Sherman and Lohnes: N. Y. State Jour Med., April, 1923.
25. Chipman: Canad. Med. Asso. Jour., August, 1924.
26. Gordon: Am. Jour. Obst. and Gynec , April, 1924.

cause further bleeding. That contraindication is removed when we have determined that the patient has a normal clotting time.

Operation should be considered only after repeated lumbar punctures have failed to give relief. The mortality from decompression is high; but these babies are desperately ill and desperate remedies are indicated. Treatment should be undertaken as early as possible—within the first week; only in that way can we hope to reduce the number of those who die at birth or who live to be pitiful cripples.

I wish to report two cases for the sake of contrast; the first case was treated, the second was not treated:

Case No 1.—Mrs. G., young primipara, was confined at home, she was in labor 18 hours and had a spontaneous delivery in the L. O. A. The child's head was severely moulded. The baby was restless, did not sleep and cried at intervals for twelve hours, when convulsions began. These were continuous and could not be controlled. Spinal puncture was done and about two drams of blood tinged fluid withdrawn. The convulsions ceased and only one puncture was necessary. At the end of two years the child was well developed mentally and physically; there have been no bad symptoms since the treatment.

Case No 2.—Mrs. L., aged 35, was confined about ten years ago. It was her first labor and was very much prolonged and difficult. Convulsions developed in the baby within 24 hours. A recovery followed, however, without treatment and the child became apparently normal. At the end of two years she showed retarded growth and was mentally dull. She is now a sad wreck, badly crippled, unable to speak plainly, and a burden on her parents.

ABSTRACT OF DISCUSSION.

Dr. Willard R. Cooke, Galveston: This condition is much more common than is generally thought. In several series of 100 consecutive cases in which puncture was done, blood was found in the fluid in from seven to twelve per cent of the cases. The importance of recognizing the condition is apparent, for to treat it early may not only save life at the time but paralyses later in life. We may divide these cases into intracerebral hemorrhage and extracerebral or subdural. In the latter class the hemorrhage is not into the cerebrum but around it. Syphilis may be a cause, but prolonged labor and forceps are the usual causes. The forceps operation is probably the most frequent cause, especially high forceps. In low forceps the danger is very slight.

Dr. Davis mentioned pituitrin as a cause and I agree with him. Pituitrin had been on the market only a very few months when we had three infants sent into the hospital for cerebral hemorrhage following its use. The pediatric service is still receiving children that show the results of the use of pituitrin. Some doctors use it freely, giving a cubic centimeter at a dose, regardless of the stage of labor, and depending on chloroform to avert rupture of the uterus. I was recently in a town where this was a common practice and saw many children with tics or spastic arms and legs. On inquiry I also found that there were many backward children in this community. The symptoms of hemorrhage at the time of birth may be very slight and vague, but in these cases the later results may be very serious.

The frank cases are easy of recognition, marked asphyxia and, sometimes, convulsions are the most prominent symptoms. We may see many that do not have immediate symptoms but that later show twitchings and inability to nurse. These babies will have bloody spinal fluid, though in some in whom we do not find any grossly visible blood the fluid will be yellow, and red blood cells will be found on microscopic examination. This may indicate minor hemorrhage, or massive hemorrhage in such a location that only a small amount of blood finds its way into the spinal fluid. Single or repeated puncture may take care of the condition. In some cases a decompression operation may be required, and, if visible clot be found, it may be removed and the bleeding vessels ligated. The mortality of such operations is, of course, high; and in some cases which recover, the damage to the brain is so great as to make the ultimate condition of the patient very deplorable.

Dr. F. A. Pierce, Dallas: Dr. Davis spoke of the studies of Holland. His postmortem studies show that there are tears in the tentorium or falx in practically all these cases. These tears are due to hyperextension of the head and because of this hyperextension we get hemorrhage in so many breech deliveries. In flexion there is a triangle formed, so that extension may take place without any strain. Holland believes that the aftercoming head in breech presentations will receive more injuries than in the vertex. It has been found that the medulla can stand a strain from pressure for 18 minutes. This amount of time may be allowed in a delivery of the head. Where we have a case in which we suspect a falx or tentorium strain we should place the baby in the Trendelenburg position so as to keep the brain out of the base of the skull. The pediatrician of our clinic does my lumbar punctures and I find it a very satisfactory remedy. We also give these babies thromboplastin and other remedies for bleeding.

Dr. O. J. Potthast, San Antonio: As prophylaxis after prolonged labor it is advisable to give 10 cc. of the father's blood into the child's buttocks. To prevent a continuation of a cerebral hemorrhage the father's blood thus injected will give best results. When there is a tight cervix and "dry birth," I learned from Polak of Brooklyn, to pack the vagina—not the cervix—with sterile gauze soaked with sterile 12½ per cent boric acid in glycerine. The glycerine acts to soften the parts and the pack prevents the head being jammed down before the cervix is dilated. The patient is brought to the edge of the bed, given chloroform and the pack inserted into the vagina with the aid of a speculum. He has shown that labor is greatly aided by this method. The cervix is made to dilate much easier from the boroglyceride. The gauze is left in until the head pushes it out; then be ready to deliver. Such a pack is also applicable in cases of placenta previa.

Dr. H. L. Wilder, Clarendon: My observation of those who are experts in doing lumbar puncture on babies and my own experience in a very few cases leads me to doubt if a bloody spinal fluid has any diagnostic significance. In doing a puncture it seems to be necessary to make a number of stabs and tear around until a hole is torn in the dura of sufficient size to allow seepage of the fluid, so that by the time one has gotten fluid I do not see that it could be other than bloody, due to injury of the surrounding vessels. There is no doubt that it is a valuable and efficacious remedy for relieving the pressure.

As for pituitrin in obstetrics, the trouble is that the average dose of pituitrin given is too large. One-half of a cubic centimeter is five times too much. We would not think of giving one-fifth of a grain of strychnine but in comparative terms that is the size dose we give when ½ cc. of pituitrin

is given. If we will speak of pituitrin in terms of the proper dose, and that is 1/10 cc. we will all be nearer together and there will not be any misunderstanding and disparity in the effects we get. More than 1/10 cc. should never be given before the end of the third stage and it is my belief that if it is given in this dose, with good judgment, we have a most valuable remedy and a boon to the woman.

Dr. Davis (closing): We see a great deal of intracranial hemorrhage in Fort Worth. This is the most frequent cause of death immediately after birth, and is always a serious condition. Dr. Pierce's cases were quite interesting, and also his suggestion for packing the cervix when that organ is rigid at the outset of labor. I have not used that procedure, but have on many occasions felt the need of some such help. I have injected whole, untyped blood in but one case. That was done subcutaneously and with mother's blood and was followed by a severe anaphylactic reaction, and death. Most labors will progress favorably and rapidly enough without the use of pituitrin. The necessity for haste exists more in the mind of the physician, I am sure, than in the condition of the average patient. Those who do not use it are not bothered so often with a slovenly contracting postpartum uterus, and postpartum hemorrhage. They are also avoiding one of the important causes of birth trauma.

TREATMENT OF PUERPERAL SEPSIS.*

BY

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I have been interested in the treatment of puerperal sepsis for the past eight years, but I became particularly interested in blood stream infections, owing to the fact that I was unfortunate in having a case of this nature in a patient that I had delivered in my private practice. We may divide the treatment of puerperal infection into prophylactic and curative.

Prophylactic Treatment: The most scrupulous asepsis immediately before and during labor is the means upon which we must mainly rely to limit its occurrence. The liability of puerperal infection will be materially lessened by strict observance of the following: First, strict asepsis by obstetrician and nurse before, during and after delivery; second, restriction of vaginal examination, also, no vulva is properly prepared for vaginal examination unless the pubic hair is removed; third, the greatest possible utilization of abdominal palpation and rectal examination; fourth the omission of vaginal douches, and fifth, the immediate repair of perineal or cervical lacerations.

Curative Treatment: In order that we may more clearly study these cases of puerperal infection, let us classify them as follows: First, all cases in the puerperium which develop a sudden rise in temperature with the usual accompanying symptoms, where these symptoms are definitely dependent upon the child-bearing act, must be classified as puerperal infection; second, those cases in which the symptoms are in all probability due to the absorption of the toxins of putrefactive bacteria should be known as puerperal sapremia; third, those cases in which the infection started in the birth canal and extended elsewhere, either by the lymph channels, the blood-stream or direct contiguity, may come under the heading of puerperal sepsis; fourth, all cases of puerperal sepsis in which micro-organism can be demonstrated within the blood stream should be called puerperal septicemia. It is therefore clear that all of these conditions come under the classification of puerperal infection. The clinical difference between sapremia and local infection in the birth canal lies in the fact that the former clears up almost immediately upon the institution of drainage, whereas the local infection may run on for a long period and still remain a local infection. All cases of puerperal septicemia under this classification are puerperal sepsis, but a localized infection of the birth canal is not sepsis, nor is every case of sepsis necessarily septicemia.

If there are indications of trouble in the perineal or cervical tear which has been repaired, the sutures should be removed at once and the wounds freely drained, so that there may be a minimum amount of absorption from the infective surfaces. Puerperal endometritis is the form of infection most frequently encountered and its treatment is most important. When the temperature remains at 101° F. for more than 24 hours, unless a uterine infection can be excluded with a fair amount of certainty, the uterine lochia should be examined bacteriologically. Intrauterine douching and curetting are meddlesome and dangerous for the reason that in most virulent infections there is nothing in the uterine cavity which should be removed, and its employment can only do harm by breaking down the protective layer of leucocytes which serves to prevent the invasion of the deeper layers of the uterus by the offending bacteria. On the other hand, when the uterus contains a great deal of debris (sapremia) the removal of this should be done by means of the finger, if possible, followed by simply cleaning out by a douche of sterile salt solution, weak mercurochrome or modified Dakin's solution, which will lead to rapid fall in temperature. The use of intrauterine douches containing bichloride or other disinfectants should be condemned. If the bacteriological examination shows the presence of the streptococcus, all local treatment is contraindicated. A negative blood

*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 6, 1925.

culture is no absolute evidence that septicemia is absent.

The patient should be placed in the Fowler's position with an ice bag over the lower abdomen. The bowels should be moved daily with an enema, but no cathartic should be administered. Ergot and pituitrin may be employed to secure better contraction. General tonics will serve to keep up the strength of the patient and to increase her resistance to infection. Fresh air, easily digested food and fluids in large quantities are most important. Normal saline by hypodermoclysis is very beneficial. Glucose 5 per cent and sodium bicarbonate 2½ per cent by proctoclysis is very good. Transfusions are often life saving in these cases. Strychnin and whiskey are very useful. High temperature should be combated by cold sponging. The results obtained with the antistreptococcic serum have been, in our experience, disappointing. Nevertheless, in all cases a blood culture should be taken and, if the streptococcus is discovered, the serum should be given. Intravenous injections of arsenobenzol were tried by Miller and Chalfant in eleven cases, with seven recoveries and four deaths. Robertson of the Auckland Hospital, New Zealand, reports that the reduction of mortality after the introduction of Eusol (Eusol is akin to Dakin's solution) treatment was very remarkable and left no possible doubt in their minds of its efficacy. Gordon Luker of the London Hospital, states that the mortality of puerperal septicemia has decreased from 32 to 5 per cent since the use of intravenous quinine.

One of the most disappointing things in modern medicine has been our failure to make progress in the treatment of bloodstream infections by septic microörganisms, although we believe with others that in the newer chemical disinfectant, mercurochrome, used intravenously in 1 per cent solutions in cases of septicemia, we have a valuable aid in the treatment of these conditions. Dr. Hugh H. Young of Baltimore, in the *Journal of the A. M. A.* of March 1, 1924, reports seven cases treated by mercurochrome and five by gentian violet. He states that the results were most miraculous with mercurochrome and just as brilliant results with gentian violet. The mercurochrome is used in 1 per cent solutions, using from 5 to 10 mg. per kilogram of body weight. Gentian violet in 1 per cent solutions was first employed as an intravenous germicide in 1923. Doctor Piper (Department of Obstetrics and Wm. Pepper Laboratory) gives an interesting report on the use of mercurochrome intravenously in animal experimentation. He used normal rabbits and also those in which he had artificially induced streptococcic infections. Following his experimental work, he then used the mercurochrome clinically, first reporting five cases with three recoveries. The other cases showed hemolytic streptococci in the blood. His later reports are very encouraging.

Dr. Barton Cooke Hirst in reporting seventeen cases, including moribund and unconscious, in which the drug had been used intravenously in streptococcic infections in the puerperium, with 45 per cent recoveries, says: "Whatever the explanation, I have been converted, having begun my observations of these cases with the same feeling of doubt as to the outcome that every one has who has seen so many methods tried without success. At any rate, one fact has been established. It is possible by a chemical disinfectant to sterilize the human bloodstream."

In his first cases, Piper used 25 cc. of a 1 per cent solution in distilled water for every 125 pounds of body weight, but he has since increased the dosage to 30 cc. for every 100 pounds of body weight. It was during the period of this increase that some ill results were noted. Our method of administration is about as follows: In cases not *in extremis*, but with a positive blood culture, an initial dose of from 20 to 25 cc. of a 1 per cent solution is given, depending upon the weight of the patient. If following the first dose there is no apparent decrease in the excretory function of the kidneys, we proceed to increase the dose by 3 to 5 cc. every third day, up to a maximum dose of 40 cc. Beyond 30 cc. we increase the dose very gradually, the dosage depending upon the weight of the patient, which is guess work, as all of these patients are too sick to ascertain their exact weight. The blood culture is watched with great care and it is the experience of some of our best men, where the patient lasts long enough to get subsequent blood cultures, to find that they have been able to get negative reports. Of course, it makes no difference how many negative reports are obtained; unless the patient gets well, the treatment is a failure.

CASE REPORTS.

Case No. 1.—Mrs. A. P. S., biparous, aged 38 years, was admitted to John Sealy Hospital, May 16, 1924, at 4:00 p. m., with a temperature of 102.6° F. The writer had delivered her in her home on May 11 at 3:00 p. m. She was under my care only two or three days before delivery, when an abdominal examination was made and the diagnosis of twins was mentioned to the husband. When called to deliver her the head of the first child was on the perineum in the R. O. A. position. Following delivery of the first child, a vaginal examination was made, at which time I noticed a profuse yellowish discharge, and called attention to this fact. The

second child delivered presented in the L. S. A. position. The placenta was delivered normally by the Schultze method.

The patient was visited the two following days and her condition was good and her temperature normal. On the fourth day she had a rise in temperature to 103 and 104° F., when she was sent to the ward. Five days after delivery she had a chill and temperature of 105° F., and she was placed in Fowler's position. A prescription of nux vomica quinine and ergot was given and an ice bag was placed over the uterus. Pituitrin 1 cc. was given hypodermatically every four hours. A blood culture was taken, which was reported negative at this time, but the culture from the interior of the uterus (by Little's tube) was positive for staphylococci and streptococci. The red blood cells numbered 3,400,000, with hemoglobin 56 per cent. The white blood cells numbered 17,500 and the polys 85 per cent. The blood smears were negative for malaria. The blood chemistry showed the following: Total N. P. N. 48.6 mg. per 100 cc. blood; urea nitrogen 30.0 gm. per 100 cc. blood; creatinine 1.6 mg. per 100 cc. blood; uric acid 13.0 mg. per 100 cc. blood; chlorides 507. mg. per 100 cc. blood. A catheterized specimen of urine was dark brown, acid in reaction, with heavy albumin, sugar a trace, and numerous hyaline and granular casts. On May 20, her blood pressure was: Systolic 120, diastolic 60. Eight days after entering the ward, her red blood cells were 3,200,000, with hemoglobin 40 per cent. The patient was transfused with 750 cc. of citrated blood, and her condition improved following the transfusion. Dr. Stone saw the patient in consultation and reported an acute plastic pleurisy. On May 31, a Murphy drip of glucose, 5 per cent, and sodium bicarbonate 2½ per cent, was started. Strychnine sulphate gr. 1/30 was given every four hours. The blood examination showed: Red blood cells 2,720,000, hemoglobin 48 per cent, white blood cells 13,200, and polys 86 per cent. A second transfusion of 500 cc. of blood was given. On June 7, the blood culture showed many staphylococci and streptococci. For days and weeks she ran a typical septic temperature, gradually becoming worse, and so we decided to try mercurochrome intravenously. She received five injections of a 1 per cent solution, with an average dose of 20 cc. given over a period of about 20 days. She seemed better clinically after each injection, but she eventually died of what appeared to be a streptococcic pneumonia.

Case No 2.—Mrs. N. A., aged 22 years, was seen in consultation. She was confined January 29, 1924, and was up and about the next day. The third day she complained of pain and tenderness with some fever. She was admitted to St. Mary's Infirmary February, 1924, with a temperature of 105° F. Vaginal examination revealed nothing; the uterus seemed normal. A culture from the cervix was reported to be negative. The white blood cells numbered 15,000, with polys 86 per cent. On the 6th she was given 20 cc. of antistreptococcic serum and 20 cc. more on the 7th. A blood culture on the 10th showed many streptococci (Dr. Kopecky). On the 13th, 14th and 15th she was given autogenous vaccine. The blood examination showed red blood cells 2,500,000, hemoglobin 38 per cent, white blood cells 12,000, and polys 84 per cent. On the 19th and 20th she received 50 cc. of 0.25 per cent gentian violet, intravenously, and also 150 cc. of blood by transfusion. On the 21st she was transfused with 500 cc. of blood. On the 25th she received 100 cc. of gentian violet, and similar amounts on the 29th and on March 3rd. She also was given repeated doses of 1 per cent mercurochrome from this time on until the 24th. Each injection was followed by rather severe reactions. The patient always became clinically better after an injection, but on the 26th she developed signs of pneumonia and died April 3, 1924.

Case No. 3.—Mrs. E. E. B., aged 19 years, a primipara, was in labor from 6:00 p. m., October 13, to 7:35 p. m., October 17, 1924, when she was admitted to the Sealy Hospital and delivered by mid-forceps by the writer. We were unable to obtain a positive blood culture in this case. The blood picture was 1,824,000 red cells, hemoglobin 40 per cent, and white cells 24,000. She was transfused with 500 cc. of citrated blood. For several days she ran a typical septic temperature. She was given antistreptococcic serum with no apparent benefit. She was then given repeated doses of 1 per cent mercurochrome, followed by slight reactions, and she made a good recovery. Whether the mercurochrome was of any value in this case cannot be determined.

Case No 4.—M. W., colored, aged 18 years, a primipara, was admitted to the obstetrical ward of John Sealy Hospital, December 14, 1924, with the diagnosis of threatened miscarriage. She was discharged December 18, improved. Four days later she was readmitted and on the 29th was delivered of a premature baby weighing 1,800 grams, that lived one day. Two days after delivery her temperature rose steadily to 104° F. A culture from the uterus on the 29th showed many short chain streptococci and staphylococci, and the blood culture showed streptococci and staphylococci. She received her first injection of 20 cc. of 1 per cent mercurochrome at 12:00 noon, on the 30th, which was followed by a chill and a temperature of 103.4° F., with a pulse of 120. The second injection was given January 2, 1925, and a final injection of 30 cc. on January 7. She had a well marked, typical reaction following each injection. A blood culture taken on January 14 was sterile, as was another taken on the 19th. Her Widal was negative on January 6 and again on the 10th. The blood Wassermann was two plus. On three examinations the urine contained albumin and hyaline and granular casts. A consultation was requested and Dr. Kopecky's report of January 17, 1925, read: "The physical examination shows practically nothing of importance. The heart rate is somewhat increased. Will do another blood culture." The urine in all of these cases was typical of any severe infection.

*Case No. 5.**—Mrs. M. R., Mexican, primipara, aged 18 years, was submitted to the obstetrical ward of the John Sealy Hospital, January 8, 1926, at noon, at which time she was having occasional pains. Her temperature at the time of admittance was 99° F. She was delivered with midforceps on January 9, and there was a second degree laceration. On January 12, she had a temperature of from 102° to 103° F., and the sutures were removed from the perineum. On the eleventh day the blood count showed 18,300 white cells with 85 per cent of polynuclears, and three days later the blood count showed erythrocytes 3,380,000, leukocytes 14,200, with 80 per cent of polynuclears and hemoglobin 50 per cent. The medical consultant was called in and reported chest findings negative. On the fifteenth day after admission the blood culture showed the streptococcus viridans and the following day 20 cc. of one-half per cent gentian violet solution was given intravenously, following which the patient's temperature dropped from 103.6° to 100° F. Two days later a similar amount of gentian violet was given intravenously and the temperature dropped to normal on the twentieth day and has remained so since. Blood cultures taken by Dr. J. H. Thorne, pathologist, on the twenty-fourth and twenty-ninth days showed

*Case report submitted for publication with paper read before the State Medical Association of Texas.

no bacterial growth. The patient's general condition is good.

Dr. Hubert Fox, director of the Wm. Pepper Laboratory of the University of Pennsylvania, says that before the intravenous use of mercurochrome was instituted, he had never seen a case of staphylococcic septicemia recover. From all reports so far we are certainly not in a position to conclude that in mercurochrome we have found a specific cure for blood-stream infections, but we feel that we may, perhaps, after more extensive observations, understand the dosage so that our subsequent results will be better. If we can kill the bacteria in the blood-stream, the best we can hope for is that by so doing we can give the human organism a chance to cure itself.

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ABSTRACT OF DISCUSSION.

Dr. G. V. Morton, Fort Worth: I have treated a few cases of puerperal sepsis with mercurochrome and my results have been rather favorable. It is encouraging to know that Dr. Robinson holds the same view. None of us are seeing as many cases of puerperal sepsis as we used to. In giving mercurochrome we should not saturate the patient with the remedy. About two weeks ago I saw a patient in consultation, who had been given large doses of mercurochrome and antistreptococcic serum to the limit. Antistreptoccic serum has been used for a number of years, but I have never seen a case where it did any good. We rely on large amounts of fluid by every avenue, intravenously, by proctoclysis and orally. Glucose and soda can be given intravenously with great benefit, keeping the patient comfortable with morphine. It is not wise to purge them. This is done with the hope that the condition will become localized. There is a question where puerperal sepsis starts. I believe it is a local process and starts in the vagina at some spot that has been injured or abraded.

We should not be too hasty in calling all fever occurring in the puerperium a puerperal fever. Focal infections are capable of being lighted up and producing rises of temperature. I once saw a case of malaria during the puerperium. It was formerly taught that in all cases of puerperal sepsis, intrauterine douches were an essential. In regard to vaginal and rectal examinations, one is just as safe as the other, provided the vaginal examination is done as aseptically as it should be done. In a series of cases in the New York Lying-in Hospital, both methods were used and no difference in results could be determined. If the examinations are properly made, there is no difference. In the hospital, sometimes, slips occur that may be classed as accidents due to faulty technic. In a small hospital doing general work we have to watch the nurses and all the attendants. We had one case of puerperal sepsis occur, that was due to such faulty technic. The case was placed in a room from which an infected case had just been moved.

Hospitals that do not or cannot arrange to keep their clean obstetrical cases well separated from their infected ones, are dangerous places to take a patient for delivery. Under such circumstances, you would get better results by taking your clean outfit to the home and delivering the patient there.

Dr. H. L. Wilder, Clarendon: I have had two cases of puerperal sepsis in the past year, occurring in women who were confined within three days of each other. In the first case there was no vaginal examination made. All that was done was to shave the patient, as time did not allow of doing more. The head and shoulders were born without any need for interference, but on the fourth day the patient had a rigor. The second patient had a rigor on the sixth day after confinement. They were both moved to the hospital and, in the anxiety to cure the patients, they were given mercurochrome, gentian violet, antistreptococcic serum and saline, intravenously. The mercurochrome was given according to the weight of the patients. The reactions that occurred in these cases and the lack of results, make me condemn the use of so powerful a remedy. One of these cases had a rigor and the temperature went up to 105.8° F. The other did not have quite as severe a reaction but did have a troublesome diarrhea and severe ptyalism. I do not believe that we are justified in burdening the patients that are already burdened to the limit with a deadly poison. Common sense should teach us that a remedy that will cause a reaction severe enough to produce a temperature to 106° F. can do nothing but harm.

Chemotherapy is all right as proven by quinine and salvarsan. It was thought that salvarsan would cure syphilis in one dose, but it was a disappointment. It will cure syphilis but is a rank poison capable of producing a condition in the liver, simulating acute yellow atrophy, if given in large doses. Mercurochrome may be a cure for blood-stream infections, but these cases are emergency cases and we do not have the time to use chemotherapy. If we can procure a remedy that cures like the antitoxins it would be well enough to give large doses, but we do not know as yet what effect such poisons have on the vital organs. I really believe that in my anxiety to cure these women, I overtreated them.

The doctor in the case is the man responsible for these cases from the standpoint of prophylaxis and cure. He is the man behind the gun and must receive the kick, which is right and proper. I do not believe that if the obstetrician is properly gloved and gowned and the field has been properly prepared, he should have any more fear of going into a vagina than he would into an abdomen.

Dr. J. L. Short, Houston: We will avoid many cases of puerperal sepsis if the uterus is made to contract properly after delivery. It has been my practice for a number of years to give ergotole after the second stage of labor, and take my time about the third stage. Then place your patient upon a good tonic that will stimulate uterine contractions and cause the uterus to remain contracted. Since adopting this method I have not had any cases of puerperal sepsis that were worthy of mention, and I believe it is due to the uterus contracting rapidly and well, thereby expelling any membranes or secundi that may remain behind.

Dr. G. B. Foscue, Waco: I have lost cases of

puerperal sepsis. Formerly, I instituted vigorous local treatment in these cases, and also gave heroic doses of antistreptococcic serum and other remedies, with the same object in view, but I found from experience that the cases that survived were those that received palliative and supportive treatment only. A woman with puerperal septicemia is dangerously sick; her vitality will be taxed to the limit to cope with this blood-stream infection, without having to carry the additional load of an intravenous injection of mercurochrome. I endorse Dr. Wilder's statement in regard to mercurochrome being a burden to these patients.

Dr. F. A. Pierce, Dallas: The dose of blood by transfusion is usually regarded to be from 500 to 750 cc. At Long Island College Hospital they are giving small doses of blood, 150 to 250 cc., and this, together with conservative treatment of the cases, is giving a better average per cent of cures. In puerperal sepsis the salvation of the patient lies with the Lord, the nurse, and the ice-cap.

Dr. Robt. A. Johnston, Houston: In spite of the advancement in other branches of medicine, our treatment of puerperal infection remains an unsolved problem. Each year some one brings forth a new cure, but until the present, none have withstood the acid test. The trend of medicine in general is toward prevention of disease, and in puerperal infection this should be particularly stressed. Those of you who heard Dr. Jeff Miller of New Orleans, at San Antonio last year, must have been impressed by the results obtained in the conservative, symptomatic treatment of puerperal infection. Decrying the use of the curette and the vaginal douche, Dr. Miller showed that in his experience, symptomatic treatment and the use of blood transfusions when anemia existed, offered the most rational treatment. Reports from all parts of the country have not shown mercurochrome to be as efficacious in the treatment of puerperal infection as its advocates had hoped. The use of ergotole after the third stage of labor, keeps the uterine musculature tightly contracted and should play a part in preventing the invading bacteria from gaining access through the lymphatic channels of the uterine wall.

No one doubts the seriousness of puerperal infection, and because of this, everyone is eager to try any proposed therapy. However, at the present time, expectant symptomatic treatment which can be carried out in the home as well as in the hospital, and which is advocated by our most eminent obstetricians, seems to offer the most.

Dr. Willard R. Cook, Galveston: Dr. Robinson's work, experience and impressions are certainly very favorable. My own impressions, from a limited experience, are that mercurochrome is often of no value, and that its use may be attended with very bad results. I can recall one instance where we had a fatal reaction. We do not know exactly what the effect on various organs of the body, especially the kidneys, may be. Nephritis, apparently mercurial, has undoubtedly followed the use of mercurochrome, and minor symptoms of mercury poisoning, such as diarrhea and gingivitis, are common.

The patient should be placed in the Fowler position, a daily movement of the bowels assured, oxytocics given regularly, and nutrition pushed. In some cases, one-half to one cc. of pituitrin every four to six hours, may be given in the early stages. All cases of puerperal infection should be considered as possibly streptococcic until proven otherwise. If the case is due to sapremia with retained clots, or other material, we clean out the uterus gently, inject pituitrin directly into the uterine wall, and place the patient on oxytocic treatment. If streptococcic infection is present, no local treatment is undertaken. These patients do better when transfused with 200 to 250 cc. of blood, once a week. We use massive transfusions only when the blood-pressure is low and we want to increase the blood volume.

Dr. Robinson (closing): I do not wish to leave the impression that I believe mercurochrome and gentian violet are cure-alls in blood stream infections, but from a very close study and from my clinical experience I do believe that they have a decided place in our armamentarium.

MISCELLANEOUS

PANHANDLE DISTRICT MEDICAL SOCIETY MEETING.

The Panhandle District Medical Society will hold its semi-annual meeting at Amarillo, April 13 and 14, at which time a large attendance is expected.

SOUTH TEXAS DISTRICT MEDICAL SOCIETY MEETING.

South Texas District Medical Society will meet at Victoria, Texas, April 8-9, 1926. A very interesting program has been prepared and an unusually large attendance is expected.

AMERICAN BOARD OF OTOLARYNGOLOGY.

The American Board of Otolaryngology has arranged for two examinations during the month of April as follows:

St. Paul's Sanitarium, Dallas, Texas Monday, April 19, at 9 a. m.

Stanford University Medical School, Clay and Webster streets, San Francisco, California, Tuesday, April 27, at 9 a. m.

Applications may be secured from the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

MEDICAL INTERNE (PSYCHIATRIC.)

Applications for medical interne (psychiatric) will be rated as received until June 30. The examination is to fill vacancies in St. Elizabeth's Hospital, Washington, D. C., at $1,860 a year, without allowances, and vacancies in positions requiring similar qualifications, at this or higher or lower salaries.

Applicants must show that they are graduates of a recognized medical college. Applications from senior students in satisfactory and regular attendance in a medical college of recognized standing will be accepted subject to their furnishing proof of graduation during the life of the eligible register. For the Psychiatric service applicants must not have been graduated prior to the year 1921, unless they have been continuously engaged in hospital, laboratory or research work along the lines of neurology and psychiatry since graduation.

Competitors will be rated on general education, and technical training and experience.

The positions at St. Elizabeth's Hospital are tenable for one year. Appointees may be assigned to the Psychiatric service or to the Medical and Surgical Service. For appointees assigned to the Psychiatric service a postgraduate course in mental and neurological diagnostic methods is given during the year, a written examination is held, and promotions to the next grade (assistant medical officer) may be made of internes who pass the examination and have completed the probationary period of six months and the year of interneship. Beyond this there is regular advancement for employees whose services are satisfactory. St. Elizabeth's Hospital has over 4,000 patients, and the scientific oppor-

tunities in neurology and psychiatry are unsurpassed. For the appointees assigned to the Medical and Surgical Service, the interneship consists of four months' surgery, four months' female medicine, four months' male medicine, and six weeks' pediatrics. Arrangements are also being made for six weeks in obstetrics. Upon successful completion of the interneship in the Medical and Surgical service, appointees are given an accredited certificate recognized by the American Medical Association.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil service examiners at the postoffice or customhouse, any city.

TWELFTH ANNUAL MEETING OF MEDICAL WOMEN'S NATIONAL ASSOCIATION.

The Twelfth Annual Meeting of the Medical Women's National Association will take place April 18-19, at Dallas, Texas, in conjunction with the American Medical Association meeting.

The headquarters of the M. W. N. A. are the Hotel Baker. Dr. May Agness Hopkins, Medical Arts Building, Dallas, is the Chairman of the Committee on Arrangements.

Women intending to go to this meeting should promptly make reservations either through Dr. Hopkins or directly at the Baker Hotel, as there will be a big crowd there. Hotel rates are reasonable, a double room with bath averaging $6.00.

The terms for railroad transportation should be looked up in the A. M. A. Journal, but in many places where there are large numbers of members of the Medical Women's National Association, special cars for the women may be run.

Medical women passing through New Orleans are specially invited to stop over there and will meet with a cordial welcome from the New Orleans medical women, represented by Dr. Elizabeth Bass, 3513 Prytania St., who is President of the Women Physicians of the Southern Medical Association.

The Texas women, cooperating with the chairman, Dr. Hopkins, are making most attractive arrangements for the meeting. All medical women, whether members of the M. W. N. A. or not, are most cordially invited to participate in this meeting.

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Concentrated Pollen Extracts - Swan-Myers. — In addition to products listed in *The Journal*, May 30, 1925, p. 1634, the following have been accepted: Bermuda Grass Concentrated Pollen Extract-Swan-Myers; Coastal Sagebrush Concentrated Pollen Extract-Swan-Myers; Elm Concentrated Pollen Extract-Swan-Myers; Johnson Grass Concentrated Pollen Extract-Swan-Myers; Redroot Pigweed Concentrated Pollen Extract-Swan-Myers; Sunflower Concentrated Pollen Extract-Swan-Myers; Sweet Vernal Grass Concentrated Pollen Extract-Swan-Myers; Yellow Dock Concentrated Pollen Extract-Swan-Myers. Swan-Myers Co., Indianapolis.—*Jour. A. M. A.*, Feb. 27, 1926.

PROPAGANDA FOR REFORM.

Antistreptococcus Serum.—For some years the Council has been questioning the value of antistreptococcus serums. These products have been retained in New and Nonofficial Remedies with the caution that on the basis of clinical reports there is perhaps justification for the use of the serum in streptococcus infections, but that there is no scientific basis for it. In consideration of a report prepared by Dr. Emil Novak on the basis of a questionnaire sent to a number of surgeons, gynecologists and obstetricians, the Council voted to retain antistreptococcus serum preparations in New and Nonofficial Remedies provisionally.—*Jour. A. M. A.*, Feb. 6, 1926.

Cod Liver Oil Emulsions.—As a short period of aeration at a low temperature does not lead to destruction of either vitamin A or vitamin D (the antirachitic vitamin) it is safe to say that emulsified cod liver oil is equal in vitamin potency to the unemulsified.

Recresal.—It is claimed to be: "Highly efficient, corroborative for the sick, convalescents and those in need of recreation," and "Specially recommended in cases of weakness and exhaustion of a physical and psychic nature, in bodily and mental overstrain; indispensable for the preservation of the tone of muscles and nerves." Tests made in the A. M. A. Chemical Laboratary show that sodium acid phosphate is the essential constituent. Therefore, the claims made for the product are preposterous.—*Jour. A. M. A.*, Feb. 27, 1926.

NEWS

Two Convicted of Unlawful Practice of Medicine at Waco.—According to the *Dallas News*, T. D. Peebles was convicted of the unlawful practice of medicine in County Court at Waco, March 5, and fined $50 and one hour in jail. On the afternoon of March 6, George A. Miller, Waco chiropractor, was convicted of the unlawful practice of medicine and fined $50 and one hour in jail.

Galveston Philanthropist Dies in France.—John Sealy, Galveston banker, capitalist and philanthropist, died February 15, at Paris, France, according to the Associated Press. His death will be a great loss to the entire city of Galveston and especially to the State Medical College and the John Sealy Hospital, the latter institution having been built by large contributions from the Sealy family. This great teaching hospital forms a memorial to its benefactors that will unquestionably outlive any cold shaft of granite or marble.

Another Medical Arts Building for Dallas.—According to the *Wichita Falls Times*, a contract has been let for the construction of another Medical Arts Building at Dallas. This building will be similar in construction to the present building and will be eleven stories high, with 150 feet on Eighth Street and 100 feet front on Lamar. There will be a two-story garage in the rear, covering a space of 150x50 feet. This building will cost approximately $1,000,000 and construction will start about March 1. For those who doubt the feasibility of a medical arts building, this should be a very good example. The twenty story building erected in Dallas only a few years ago, has been full and has had a long waiting list since shortly after it was built, and now another similar building is being constructed to take care of those who cannot be accommodated in the first building. This has also been the case in many other cities throughout the land.

Seven Tons of Barbecue for American Medical Association Meeting are being prepared by Dr. John H. Dean of Dallas, according to a dispatch from the *Dallas News*. The meat for this barbecue will be selected from baby beeves on Dr. Dean's own ranch near Lamesa. It will take eighty calves to furnish the estimated seven tons of baby beef to satisfy the 10,000 lusty appetites belonging to that number of guests expected to be present at the barbecue. It seems that Dr. Dean is literally leaving no stick unturned to insure the success of the barbecue, for he is not only furnishing the meat for it, but is

having hickory and pecan trees cut down on his Navarro County farm and the wood seasoned in order to furnish the right kind of heat and smoke to give the juicy beef the proper Texas flavor, in order that the visitors, especially those from the North and East, may know that real Texas barbecue is indeed food for the gods.

Dr. William Keiller Resigns Deanship of State Medical College.—Owing to the precarious condition of his health, Dr. William Keiller, who has been Dean of the Medical Department of the University of Texas at Galveston ever since Dr. W. S. Carter resigned that position, tendered his resignation, which was accepted by the Board of Regents. Dr. Keiller expressed to the University Alumni and the people of Galveston appreciation of their sympathetic and helpful attitude during his deanship. He stated that apart from the state of his health he was persuaded that the Executive Department of the Medical College was best served when in the hands of a younger man. Dr. Keiller wishes his many friends to know that he is not severing his connection with the University but feels that he should be free to devote more time to research work in anatomy, especially in the anatomy of the nervous system. This research work together with some part of the teaching work in the department of anatomy will be all that the condition of his health will permit him to do and will occupy all of his time.

Dr. Henry Hartman, Professor of Pathology, was named Acting Dean by the Board of Regents, to succeed Dr. Keiller, and he has assumed his new duties.

SOCIETY NEWS

Anderson County Medical Society met at Palestine at the Palestine Sanitarium, February 8, with the following members present: Drs. H. R. Link, E. W. Link, R. M. Dunn, R. H. McLeod, R. Q. Hunter, B. F. McDonald, E. B. Parsons, C. F. Card, W. O. Funderburk, A. Arthur Speegle, G. D. Small and A. L. Hathcock.

Dr. R. M. Dunn reported a case of cranial defect in a new-born baby, involving all of the tissues down to the brain membranes. This defect was in the region of the posterior fontanelle. The baby also had a defective soft palate.

Dr. H. R. Link reported a case that he had seen in which on operation the stomach was found partly within the pelvis. It presented a constriction resembling that of an hour-glass stomach. A mass was found at the pyloric end of the stomach which was probably an indurated ulcer. A gastro-enterostomy was done.

Sandwiches and coffee were served by the nurses at the sanitarium after the meeting.

Bexar County Medical Society met January 21, with about fifty members and five visitors present.

Dr. R. H. Crockett read a paper on Deep Radiation Therapy.

The discussion of this paper was opened by Dr. F. P. Herff. Dr. Herff stated that he believed that deep x-ray therapy had its place in the treatment of cancer but that it could not be used in the treatment of cancer of the liver or stomach. He also thought that mild dosages were better in the treatment of cancer of the breast. He believed that many hopeless cases were referred to the radiologists by physicians not wishing to assume the responsibility and that this practice tended to discredit the radiologist. He did not think that this was fair either to the radiologist or to the public.

Major H. C. Pillsbury thought that much good could be accomplished by properly applying x-ray therapy and that benefit could be obtained by this means, if by any. Life expectancy is greatly increased if operations for malignancy are followed up by proper radiation therapy. He agreed with Dr. Herff that lower voltage x-ray therapy was better in treatment of cancer of the breast and was sure that Dr. Crockett used this method.

The case was further discussed by Drs. Dudley Jackson, J. Manning Venable, G. A. Grimland, S. P. Cunningham and O. J. Potthast. Dr. Crockett, in closing, stated that the Germans had probably been able to report better results from x-ray therapy than the Americans because the former were using larger dosages of x-ray. Many cases do not receive deep enough therapy nor a sufficient amount. He stated that he did not use heavy voltages in treatment of breast cancer or over the stomach or intestines. One should use every means possible to make a patient more comfortable even if cure is impossible.

Dr. Roy T. Goodwin read a paper on Medical Diathermia. He stated that this method of treatment had gone through three stages: the stage of optimism and over-enthusiasm, the stage of annihilism, and the stage of scientific investigation. During the latter stage the proper place of this method of therapy in medicine has been established.

This paper was discussed by Drs. E. R. Herff, R. H. Crockett, O. H. Judkins, O. J. Potthast, Chas. E. B. Flagg and Dr. Brewer of Lincoln, Nebraska.

Bexar County Medical Society met February 4, with 65 members and 8 visitors.

Dr. Peter M. Keating read a paper on Symptoms and Etiology of Pain in the Back.

Dr. C. S. Venable opened the discussion, stating that he concurred in the essayist's classification of different types of spinal conditions. He believed that bony transplants should be used in the treatment of spondylitis in addition to employing plaster casts when necessary. The radiogram will often fail to show such lesions as luxation of the sacroiliac synchondrosis, spondylitis, etc. Ninety per cent of the so-called railroad spine cases will present no demonstrable lesions.

Dr. Mary King Robbie stated that she had seen a case a few years ago in which a woman had been injured in a street car accident. The radiogram showed a marked separation of the sacroiliac synchondroses and the plaster cast gave complete relief.

Dr. Keating, in closing, stated that he believed true sacroiliac relaxation was a comparatively rare condition. Patients often complain of pain in that region and an orthopedic belt is applied, when in reality the pain is due to bone proliferation. Railroad spine may be due to sudden compression of one of the spinal foramina, with a pinching of these nerves which may clear up with mobilization.

Lieut. Colonel R. F. Metcalfe, M. C., Station Hospital, Fort Sam Houston, read a paper on Cholecystography, a Modern Diagnostic Aid in Cholecystitis.

Major H. C. Pillsbury, M. C., said that one must watch out for severe reactions in employing cholecystography, as such have been reported. The required dosage will not be absorbed when the dye is given orally. If no gallbladder shadow is cast, it is probable that that organ is so diseased that it could not concentrate the dye. There are three essentials in this method of diagnosis: the dye must be given in sufficient dosage to be delivered to the gallbladder; the liver must be capable of excreting the dye, and the gallbladder must be able to concentrate the dye.

Dr. W. S. Hamilton stated that a large per cent of so-called dyspeptics really had gallbladder disease. He had been using the oral method of administration with fair results. Stewart of New York City, had employed the oral method in 80 per

cent of cases with only 10 per cent of failures. Graham of St. Louis, has reported no deaths in 40,000 administrations, and severe reactions are becoming fewer and fewer because of the increasing purity of the drug employed.

Dr. W. H. Cade stated that up to three months ago he had used this method in a great number of cases with very good results, but he obtained such a severe reaction in his last case that his enthusiasm for the method had been somewhat dampened. The patient in this case showed casts and albumen in the urine for some time and evidently had a retinal hemorrhage, since sight had become very poor in one eye. He stated that two cases that had been diagnosed as gallbladder rash by Dr. McGlasson, were shown by cholecystography to have infected gallbladders and the rash cleared up in each instance upon drainage of the gallbladder.

Lieut. Colonel Metcalfe, in closing, stated that although different observers had shown that magnesium sulphate solution placed in the duodeum by means of an Einhorn tube, increased the flow of bile, no increase is shown by cholecystography. The administration of milk, cream and fats will show a change in the shape and size of the gallbladder. In his small series of thirteen cases he had had no severe reactions and 100 per cent results. He believed that the freedom from reaction was due to the fact that all cases were hospitalized and the patients placed on the right side immediately after the intravenous injection. The administration of ½ c. c. of 1-1000 solution of adrenalin and of sodium bicarbonate solution every three hours, has been suggested for minimizing the reaction.

Dr. J. A. McIntosh reported that the film entitled, "One Scar or Many," which had been loaned the Society by the Metropolitan Life Insurance Company, for the purpose of increasing smallpox vaccinations had been seen by 16,254 people.

Dr. Isar G. Fox was elected to membership.

Bexar County Medical Society met February 11, with about 65 members present.

Dr. S. R. Kaliski reported a case of pyloric obstruction in a paper entitled, "Pyloric Obstruction and Cardiospasm."

Drs. Thos. Dorbandt and Connor reported two cases of paresis. In the first case the patient had had lues the greater part of his life, but had manifested very few symptoms during most of the time. He was suffering from paresis, looked far older than his years, had lost control of his sphincters, and had an aneurysm of the aortic arch. The iodides are being pushed in this case because death will probably result from the aneurysm and not from paresis. The second case was one of tabes dorsalis with a beginning paresis. Twenty-five per cent of all tabetics have had attacks of gastric crises and there is danger of needless operations being performed in such cases. It has been estimated that ten per cent of all tabetics have been operated from one to four times because of gastric crises being confused with gallbladder disease, gastric ulcer, etc. Every acute abdominal case should be considered from a neurological standpoint and a spinal puncture done in suspicious cases. These cases were discussed by Drs. J. A. McIntosh, Dudley Jackson, J. Manning Venable, R. R. Ross and J. H. Burleson.

Dr. Dorbandt, in closing, said that it was just as bad to make the diagnosis of lues when the disease is not present as it is to fail to properly diagnose a case of syphilis. Except in hereditary cases there is always some initial lesion. Immunity is first established in the skin and this is followed by general symptoms such as malaise, neuralgic pain, etc.

Brazos-Robertson Counties Medical Society met January 29, at Hearne, at which time officers were elected as follows for the ensuing year: President, Dr. John A. Crockett of Bryan; Secretary, Dr. John W. Black of Bryan.

The next meeting of the Society will be at Bryan, February 9.

Collin County Medical Society met February 9, at the City Hospital at McKinney, with 25 physicians present.

Dr. W. G. Harris of Plano reported several interesting cases.

Dr. J. B. Wright of Westminster read a paper on the "Discussion of the Treatment of Heart Disease."

Dr. George L. Carlisle of Dallas, read a paper on "Enlarged Thymus." Dr. H. Leslie Moore of Dallas showed some interesting radiograms.

Cameron County Medical Society gave a banquet at 7:30 p. m., February 13, at Brownsville, in honor of Dr. C. M. Rosser of Dallas, president of the State Medical Association.

Dr. Malone Duggan of La Feria, president of Cameron County Medical Society, acted as toastmaster. About 200 persons heard Dr. Rosser's wonderful interpretation of the Medical Practice Act of Texas, and the necessity for its enforcement. His address was greatly appreciated and those present pledged their support to the campaign for the enforcement of the laws governing the practice of medicine in this State.

Dallas County Medical Society met January 14, at Stoneleigh Court, with 105 members present.

Dr. John O. McReynolds delivered his Presidential Address, outlining the proposed activities of the Society for the year.

Interesting cases were reported by Drs. M. S. Seely, G. L. Carlisle, C. M. Rosser and Marvin D. Bell.

Dr. Claude Uhler read a paper on "Pituitary Insufficiency," which was discussed by Drs. A. J. Schwenkenberg, Frank Harrison, D. L. Bettison and Roy Keller.

Dr. W. H. Probert read a paper on "Inflammatory Carcinoma of the Breast," which was discussed by Dr. C. M. Rosser.

A favorable report was made by the committee appointed to investigate the conduct of the Dallas County Farm, which was adopted by the Society, and also a motion endorsing the administration of the present incumbent, Dr. A. W. Carnes.

Resolutions concerning the enforcement of the Medical Practice Act were introduced by Dr. Geo. L. Carlisle and adopted by the Society. In these resolutions the newspapers were thanked for the support that most of them have given in the Educational Campaign being conducted by the State Medical Association and its component societies.

Dallas County Medical Society met January 30, in the dining room of the Nurses Home of Baylor Hospital, with 53 members present.

Dr. F. H. Newton reported the case of a man with a severe infection of the tonsils, accompanied by an erysipelatous eruption of the face. Examination of pus from the blebs revealed a staphylococcus aureus infection.

Dr. T. M. Jarmon reported the case of a boy 13 years of age, who apparently strained his back while lifting a crate of base-ball bats. His back was strapped and the following evening his temperature rose to 104° F. There was a leukocyte count of 16,000. A radiogram showed a large mass around the left kidney and pus was withdrawn by paracentesis. On the third day a perinephritic abscess was drained and a streptococcus hemolyticus was cultured from the pus.

Dr. F. W. Rockett reported the case of a baby

sixteen days old who developed a case of influenza involving both lungs, the temperature rising rapidly to 106° F. Symptoms of pyelitis were presented. The temperature was reduced by fluids and alkaline solutions. The patient developed meningitis on the fourth day and bloody spinal fluid was obtained by spinal puncture. The child died on the fifth day.

Dr. John R. Lehman read a paper on Periodic Health Examinations: Why and How, which was discussed by Drs. R. E. Beddoe, W. T. Robinson and F. W. Rockett.

Dr. C. R. Hannah read a paper on Abortion: Diagnosis and Treatment, which was discussed by Drs. T. M. Jarmon and W. T. Robinson.

Dr. Minnie L. Maffett made a report as Chairman of the Program Committee, which was adopted by the Society with one amendment. Among other recommendations were that papers be limited to 20 minutes, and that the number of physicians reporting cases be limited to three at any meeting of the Society.

Drs. D. G. Kilgore and R. W. Lamson were elected to membership.

Dallas County Medical Society met February 11, in the auditorium of the Nurses Home of St. Paul's Sanitarium, with 72 members present.

Mr. E. R. Brown, President of the Dallas Chamber of Commerce, made a brief address and introduced Mr. A. L. Reed, Secretary of that organization. Mr. Reed then addressed the Society on the relation of the Chamber of Commerce to the Medical Profession. After this address a committee was appointed to canvass the members of the Society for membership in the Dallas Chamber of Commerce.

Dr. Bedford Shelmire reported a case of bilateral chancres of the tongue.

Dr. L. S. Thompson reported a case illustrating the necessity of blood matching before transfusion.

Dr. R. W. Baird reported a case showing the significance of sore tongue.

Dr. L. M. Sellars read a paper on "Chronic Idiopathic Atrophic Rhinitis—the Rationale of its Treatment." This paper was discussed by Drs. E. R. Carpenter and H. B. Decherd.

Dr. David V. Myers read a paper on "Congenital Tumor of the Larnyx," which was discussed by Dr. H. B. Decherd.

Dr. John O. McReynolds made a report on his trip to Mexico and appointed a committee to arrange for entertaining physicians from Mexico during the American Medical Association Meeting in April.

At the close of the meeting refreshments were served the Society by the Sisters of St. Paul's Sanitarium.

Eastland County Medical Society met February 16, at Eastland, in the American Legion Hall.

The invocation was pronounced by Rev. P. W. Walthall of Eastland.

The address of welcome was delivered by Dr. H. W. Tanner of Eastland, and the response was made by Dr. Joseph W. Gregory of Cisco.

The following scientific program was rendered: "The Treatment of Pneumonia," Dr. D. Ball of Cisco; "The Treatment of Diabetes Mellitus," Dr. David W. Carter, Dallas; "The Use of Local Anesthesia in a Few Abdominal Operations," Dr. Edward Blackwell of Gorman; "Surgical Conditions of the Liver," Dr. T. L. Lauderdale of Ranger.

Ellis County Medical Society met January 12, at Ennis, with the following members present: Drs. A. T. Hampton of Ferris; J. F. Forehand and W. A. Grant of Bardwell; N. J. Pickett of Milford; J. Pestal, A. L. Thomas, J. S. Terry, T. W. White, R. L. Rains and W. P. McCall of Ennis, J. E. Jones, R. H. Looney, S. H. Watson, G. M. Goddard, W. F. West, W. C. Tenery and E. F. Gough of Waxahachie.

Dr. Wayne T. Robinson of Dallas read a paper on "Induction of Labor." Dr. W. P. McCall of Ennis opened the discussion.

Dr. J. E. Jones of Waxahachie read a paper on "Dermatology and the *X*-Ray." Dr. R. H. Looney of Waxahachie opened the discussion.

El Paso County Medical Society met February 1, with 46 members present.

A motion was adopted by the Society that an invitation be extended to the State Medical Association to meet at El Paso in 1927.

A motion was carried that El Paso County Medical Society carry on an educational program in the local newspapers under the direction of an expert layman. This program was to cover a period of about six months at a cost of about $1,500, which expense was to be met by an assessment of $10 per member. The motion was discussed by Doctors E. J. Cummins, T. J. McCamant, W. R. Jamieson, Paul Gallagher, E. A. Duncan, E. C. Prentiss, F. D. Garrett, J. W. Cathcart, K. D. Lynch, R. L. Ramey, J. A. Hardy, J. W. Laws and E. D. Strong.

A motion was also carried that all information given the newspapers concerning the business of the Society be submitted by the President.

Dr. Ralph Homan was elected to membership.

El Paso County Medical Society met February 8, with 48 members present.

Dr. W. H. Anderson was elected Librarian and Dr. F. D. Garrett was elected to fill the place on the Board of Censors vacated by Dr. E. A. Duncan.

Dr. E. J. Cummins related the case of a boy who fell on a splint on his left arm and sustained a rupture of the spleen and a tear of the mesocolon.

Dr. R. B. Homan reported the case of a spontaneous pneumothorax in a patient with advanced tuberculosis. Dr. F. P. Miller performed a phrenicotomy that gave considerable relief from pain and dyspnea. A postoperative copious gastric hemorrhage terminated further observation, and at autopsy a large duodenum without any demonstrable ulcerated spot was found.

Dr. E. A. Duncan read a paper on the "Physiology of Blood Clotting" and briefly outlined some of the hemorrhagic disorders. He thought that calcium was indicated only in chronic jaundiced cases prior to operation. He also described a method for estimating the clotting of the blood.

Dr. R. B. Homan read a paper on the "Immediate and General Care of Pulmonary Hemorrhage," stressing alleviation of nervous conditions, and measures to encourage the coagulability of the blood and to reduce the blood-pressure. He commended codeine for the cough and the use of thromboplastic ferments hypodermatically and calcium intravenously. For reducing the blood-pressure he mentioned sodium nitrite, veratrum viride and amyl nitrite.

Dr. D. E. Smallhorst gave an outline of various forms of gastrointestinal hemorrhage and indicated the method of treatment. He stated that the local use of the ice-cap was not based on physiological reasons as cold delayed clotting.

Dr. K. D. Lynch outlined the important types of genito-urinary hemorrhage, distinguishing between those of the kidney and of the bladder. He stated that the treatment would depend upon the cause of the condition. He outlined the method of treatment for postoperative hemorrhage following prostatectomy.

Dr. Frank Schuster outlined the treatment indicated in different forms of nose and throat hemorrhage.

Dr. H. H. Varner read a paper on the "Treatment of Postpartum Hemorrhage, Placenta Previa and Accidental Hemorrhage." He also outlined the

treatment for hemorrhage following ruptured ectopic pregnancy and that following abortion.

Dr. P. E. McChesney outlined the different varieties of cord and brain hemorrhage with the methods of treatment applicable to each case.

Dr. W. L. Brown discussed hemorrhage in surgical operations emphasizing the importance of a blood-clotting test and complete and thorough ligation of blood vessels and bleeding points.

Dr. F. P. Miller spoke on the mechanical means of controlling hemorrhage, recommending phrenicotomy as an aid in checking certain types of pulmonary hemorrhage to be followed by thorocoplasty.

These papers constituting a symposium on hemorrhage were discussed by Doctors W. W. Waite, F. D. Garrett, Harry Leigh, R. L. Ramey, J. A. Rawlings, J. A. Hardy and E. A. Duncan.

El Paso County Medical Society met February 15, with 21 members present.

Dr. G. Werley reported the case of a child with the history of general edema followed by emaciation. The only physical findings were the escape of gas and pus from the umbilicus. A diagnosis of gas bacillus infection was made.

Dr. W. R. Jamieson read a paper on "Chronic Prostatitis," giving the common exciting and contributing causes with an outline of treatment. The paper was discussed by Doctors E. D. Strong, G. Werley and C. L. Smith.

Major Hutter read a paper on "Acute Cholangitis." He stated that recent studies of an epidemic in Algeria seemed to show that the condition was identical with Weil's disease. The differential diagnosis, symptomatology, and treatment were outlined. This paper was discussed by Doctors H. T. Safford, E. J. Cummins, Harry Leigh and F. P. Miller.

A committee was appointed to arrange for a farewell dinner in honor of Dr. John W. Tappan.

Harris County Medical Society met February 6.

Dr. E. L. Goar reported a case of glaucoma following obstruction of the central vein of the retina. The patient, aged 61 years, complained of loss of sight in the left eye. Examination showed hemorrhage of the retina, probably embolic in origin. Eighty days later the affected eye became red and painful and throbbed. Intraocular tension was 60 mm. The eye was enucleated.

Dr. E. M. Arnold, in discussing the case, stated that arteriosclerosis may play a prominent role in these conditions. Treatment is unsatisfactory.

Dr. Goar expressed a doubt as to whether the condition was due in this case to albuminous exudates blocking the filtration angle.

Dr. W. W. Coulter read a paper on "The Practical Value of Blood Chemistry." He reviewed the present knowledge concerning blood chemistry and its practical application. Its value is restricted except in such conditions as hyperglycemic states. In prostatic cases a urea nitrogen value of 30 precludes operation. In skin disease there is a diversity of opinion as to the value of blood chemistry; however, blood chemistry is of great value in some cases.

Dr. R. M. Purdie in discussing Dr. Coulter's paper, stated that blood chemistry was often misleading and cited the fact that in eclampsia it is not always possible to show a retention of nitrogenous substances. One of the great uses of blood chemistry is in the detection of renal glycosuria, as only by this means can such cases be correctly estimated. This paper was further discussed by Drs. R. A. Johnson, B. F. Smith, J. C. Michael and J. H. Agnew.

Dr. John T. Moore read a paper on "The Influence of a Master Surgeon." The paper was a biographical sketch of the life and work of Dr. John T. Halstead.

Dr. C. C. Cody added a number of personal reminiscences of Dr. Halstead.

Harris County Medical Society met February 13, with a good attendance.

Dr. A. H. Flickwir, City Health Officer, called the attention of the Society to a statement appearing in one of the afternoon papers that there were 35,000 cases of "flu" in Houston at that time. He stated that he had not received any report indicating any such number of cases and requested information from members of the Society. It seemed to be the consensus of opinion that the number of cases was greatly exaggerated and that the type of disease in most cases was much milder than the influenza that prevailed in 1918.

Dr. C. F. Lehman of San Antonio read a paper on "Melanomata." He believed that every mole showing the characteristic slaty color of melanoma should be removed. From a clinical standpoint it is well known that melanomas are extremely malignant, metastases occurring early and diffusely. Melanotic moles should be destroyed by excision, preferably with the cautery knife, followed by radium or *x*-ray treatment. The paper was illustrated by photographs and sections of eight cases, each with interesting features.

Dr. F. L. Barnes in discussing the paper stated that malignant moles did many freakish things. Although they may not return locally, general metastasis is common following their removal. The case was further discussed by Drs. C. M. Griswold, A. H. Braden, B. T. Vanzant and J. E. Hodges.

Dr. J. C. Michael stated that since mestastasis had occurred following the removal of apparently quiescent moles, the decision as to which measure to adopt was difficult. If a mole is removed, the operation should be carried out as if the mole were already malignant.

Dr. Lehman, in closing, reiterated his opinion that all melanomas should be removed. He did not think that metastasis was brought about by such removal.

Dr. W. S. Hanson of San Antonio read a paper on "Differential Diagnosis of Chest Conditions with Particular Reference to Mediastinal Tumors." He showed by any number of illustrative cases the mistakes that might arise in diagnosis. The *x*-ray should be regarded as only a diagnostic aid and not as the final arbiter in questionable cases.

Dr. B. F. Smith, in discussing the paper, stated that the Roentgen-ray was the only means of detecting a mediastinal condition. In Hodgkin's disease, the mediastinal glands are often involved before the diagnosis can be established by enlargements of the superficial lymph nodes of the glands.

Dr. J. E. Hodges stated that the diagnosis of mediastinal conditions is very difficult and he thought that many practical points had been brought out in the paper.

A rising vote of thanks was given Doctors Lehman and Hanson for their participation in the program.

Hidalgo County Medical Society met at McAllen February 12, at which time a banquet was given at the Casa de Palmas, the Society acting as hosts to a number of physicians and many prominent citizens of the Valley.

Judge Glasscock of McAllen presided as toastmaster. The principal address of the evening was made by Dr. C. M. Rosser of Dallas. He explained the purpose and *modus operandi* of the Medical Practice Act of Texas and fearlessly denounced those who are violating this just law. The address met with a hearty response upon the part of his audience and the majority of those who heard him pledged their support to the campaign for the enforcement of the medical laws.

It was announced at the banquet that the Hidalgo County Medical Society would publish a series of educational articles in the local newspapers of that county for the purpose of arousing public sentiment to the necessity of enforcement of the Medical Practice Act.

Parker-Palo Pinto Counties Medical Society met at the office of Dr. C. B. Williams of Mineral Wells, February 16, with the following members in attendance: Doctors E. A. Rowley and W. S. Pedigo of Strawn; H. F. Leach and A. S. Garrett of Weatherford; R. H. Smith of Palo Pinto; C. B. Williams, B. R. Beeler, R. L. Yeager, E. F. Yeager, J. F. Garmany, C. B. Law, A. J. Evans, L. C. Roberts, J. H. McCracken and W. B. Lasater of Mineral Wells.

The meeting was called to order by Dr. E. A. Rowley, who was elected temporary chairman. A motion was made by Dr. H. F. Leach of Weatherford, that the Parker-Palo Pinto Society be dissolved and that its charter be surrendered to the State Secretary and that application for separate charters for Parker and Palo Pinto Counties be made. The motion was seconded by Dr. C. B. Williams, and after discussions by Drs. A. S. Garrett, C. B. Williams, J. H. McCracken, R. L. Yeager, H. F. Leach and B. R. Beeler, was passed.

Palo Pinto County Medical Society met at the office of Dr. C. B. Williams of Weatherford, February 16, with the following members in attendance: Drs. W. S. Pedigo, E. A. Rowley, R. H. Smith, J. H. McCracken, C. B. Williams, B. R. Beeler, R. L. Yeager, E. F. Yeager, L. C. Roberts, C. B. Law, A. J. Evans and W. B. Lasater. The following doctors were present as visitors: H. F. Leach and A. S. Garrett of Weatherford, and G. T. Brian of Mineral Wells.

Dr. E. A. Rowley was elected temporary chairman and Dr. W. B. Lasater temporary secretary. Election of officers was then proceeded with and the following were elected: President, Dr. E. A. Rowley of Strawn; Vice-President, Dr. B. R. Beeler of Mineral Wells; Secretary, Dr. J. F. Garmany of Mineral Wells; Censors, Drs. R. H. Smith of Palo Pinto, C. B. Williams of Mineral Wells, E. F. Yeager of Mineral Wells; Delegate, Dr. L. C. Roberts of Mineral Wells, and Alternate, Dr. C. B. Law of Mineral Wells.

The Secretary was instructed to apply to the State Secretary for a charter for the new Society.

Dr. J. H. McCracken called the attention of the Society to the matter of vital statistics, urging the doctors to comply with the laws in all respects. Vital statistics are growing to be of more and more importance and it is a disgrace that the whole State of Texas is not in the United States Registration Area.

Polk County Medical Society met February 10, at Livingston. The following officers were elected for the ensuing year: President, Dr. Ivison Grimes of Corrigan; Vice President, Dr. Harry Bergman of Livingston; Secretary-Treasurer, Dr. William W. Flowers of Livington; Delegate, Dr. W. G. Pullen of Corrigan, and Censors, Drs. R. B. Love and W. K. McCardell of Livingston and P. B. Handley of Hortense.

Milam County Medical Society met at Cameron, February 11, with the following members present: Drs. A. S. Epperson and G. B. Taylor of Cameron; W. J. Fontain of Jones Prairie; J. Z. Young of Buckholtz; W. H. Lyons of Sharp; J. S. Hubert of Branchville, and R. E. B. Bledsoe of Taylor. The following visiting doctors were present: Drs. J. C. Herring of Burlington; R. T. Wilson, V. M. Longmire, Claudia Potter, R. W. Noble, L. W. Pollock and G. S. McReynolds of Temple; M. M. Gough of Milano; N. D. Buie of Marlin; W. B. Thorning of Houston; R. K. Aynesworth and Carl Lovelace of Waco; C. F. Lehman of San Antonio.

Officers for 1926 were elected as follows: President, Dr. W. R. Newton; Vice-President, Dr. D. E. Monroe; Secretary, Dr. G. B. Taylor; Board of Censors, Drs. J. L. Denson, A. S. Epperson and G. B. Taylor, all of Cameron.

Dr. J. C. Herring presented two very interesting cases and Dr. W. R. Newton presented a case in which many stones had been removed from the kidney, with complete recovery resulting.

The following papers were then presented: "Scarlet Fever," Dr. V. M. Longmire of Temple; "Remarks on the Diagnosis and Treatment of Chronic Nephritis," Dr. J. H. Agnew of Houston; "Skin Diseases, With Lantern Demonstration," Dr. C. F. Lehman of San Antonio; "Diagnosis of the Acute Surgical Diseases of the Abdomen," Dr. K. H. Aynsworth of Waco; "The Treatment of Peptic Ulcer," Dr. W. Burton Thorning of Houston; "Perforating Ulcer of the Duodenum," Dr. L. W. Pollock of Temple; "Fracture of the Femur at the Hip Joint," Dr. R. W. Noble of Temple; "Report of Thirty-one Cases of Foreign Bodies in the Lung and Esophagus," Dr. Geo. S. McReynolds of Temple; "*X*-Ray Treatment of Cancer of the Uterus," Dr. R. T. Wilson of Temple.

The next meeting of the Society will be held at Cameron on June 8.

Nueces County Medical Society met at Corpus Christi, January 5, and the following officers were elected for 1926: President, Dr. A. H. Speer of Corpus Christi; Vice-President, Dr. George Wyche of Robstown; Secretary-Treasurer, Dr. M. J. Perkins; Delegate, Dr. C. O. Watson; Alternate, Dr. H. R. Giles; Censors, Drs. Edgar Mathis, Jerome Nast and H. A. White, all of Corpus Christi.

Nueces County Medical Society, assisted by the doctors of Kleberg and San Patricio Counties, held the annual banquet for the physicians of the Gulf Coast, in the Nueces Hotel, February 11, at 7:30 p. m. Each doctor brought as his guest several laymen. There were 175 people present at the banquet.

Dr. A. H. Speer, President of the Society, presided as toastmaster.

Hon. Lynch Davidson of Houston, was introduced and made an eloquent address, praising the doctors for their efforts to protect the public from medical imposters.

Dr. C. M. Rosser of Dallas, was then introduced and presented a powerful exposition of the Medical Practice Act, which was enthusiastically received, and at the close of his speech when his audience was asked to pledge their support in the enforcement of this just law, the whole assembly stood up. The Society will follow up this meeting with a series of educational articles in the local newspapers.

Runnels County Medical Society met December 10, 1925, and the following officers were elected:

President, Dr. J. W. Blasdell of Ballinger; Secretary-Treasurer, Dr. J. W. McCune of Ballinger.

Stephens County Medical Society met at Breckenridge, February 14, with 14 members and one visitor, Dr. W. L. Jackson of Ranger, present.

Dr. W. L. Jackson read a paper on "Colonic Anesthesia," which occasioned much discussion.

Dr. H. W. Cartwright of Breckenridge gave an interesting account of his trip to Europe in the Inter-State Postgraduate Assembly Tour last summer.

Dr. P. C. Wray of Breckenridge read a paper on "Tetanus."

Mr. Goodwin, Secretary of the Breckenridge Chamber of Commerce, gave an interesting address on "The Doctor in Business."

A luncheon was served in the banquet room of the Chamber of Commerce.

Tarrant County Medical Society met January 22, with about 50 members present.

Dr. H. L. Warwick read a paper on "The Relation of Eye, Ear, Nose and Throat Conditions to General Medicine." This paper was discussed by Drs. E. L. Howard, Lyle Talbot, I. L. Van Zandt, Rex Howard and Jack McLean.

Dr. J. S. Bardin read a paper on "Hemorrhage Following Tonsillectomy," which was illustrated by three beautifully drawn charts. He also demonstrated several special instruments for checking tonsillar hemorrhage. This paper was discussed by Dr. Wm. Webb, Arthur Brown, H. L. Warwick and J. J. Richardson.

The report of the Budget Committee was made by Dr. Holman Taylor, Chairman of the Committee, and was adopted by the Society.

Tarrant County Medical Society met February 15, with about 30 members present.

Dr. I. C. Chase read a paper on "Problems in Proctology," which was discussed by Drs. E. W. Tisdale of Handley, and Joe Dildy of Brownwood.

Dr. Dildy was a guest of the Society and upon request gave an interesting account of Brown County's fight against quackery.

Dr. Porter Brown read a paper on "Allergy," which was discussed by Drs. L. M. Whittsitt, Rex Howard and T. C. Terrell.

Drs. J. W. Winstead and J. A. Little were elected to membership.

After some discussion a committee consisting of Drs. Holman Taylor and I. C. Chase was appointed to investigate the feasibility of Tarrant County Medical Society entertaining the American Medical Association with a Rodeo during the A. M. A. Meeting at Dallas.

Dr. Will Horn made a report for the Committee on Public Relations, stating that investigations of illegal practictioners in Fort Worth were being continued by the representatives of the State Board of Medical Examiners, and that prosecutions would soon follow.

Tom Green County Medical Society met February 1, with the following members present: Drs. E. L. Batts, Burleson, W. B. Everitt, J. H. Herndon, D. L. Hess, H. K. Hinde, Wm. F. Chambers, Thomas D. Shotts, H. P. Rush, John M. Williams, Geo. L. Lewis, J. P. McAnulty, H. R. Wardlaw, Joseph B. McKnight and C. T. Womack. Dr. H. Oschman of the San Angelo Pathological Laboratory was present as a visitor.

Dr. H. P. Rush presented a patient who had been treated with *x*-ray for epithelioma of the face. A bad burn had resulted which was successfully treated by Dr. Rush by a skin graft. The case was discussed by Drs. J. B. McKnight and W. B. Everitt.

Dr. S. J. Burleson of Eden read a paper on pneumonia. He stated that he had nothing new to offer in the treatment of pneumonia but was reading the paper because of the prevalence of the disease in his community. The importance of encouraging elimination through the bowels, kidneys, skin, etc., was stressed. Stimulants and counterirritants should be given as needed. In severe cases it is best to advise a consultation, but many doctors should not be called in, as the responsibility will then be too much divided. This paper was discussed by Drs. J. P. McAnulty, H. P. Rush, W. B. Everitt, H. R. Wardlaw, J. B. McKnight and John M. Williams.

Dr. J. H. Herndon of Miles, extended an invitation for the society to meet next month at that place and suggested that two or three papers on such subjects as tuberculosis, diseases of children, etc., be read and that the public be invited to attend the meeting. He stated that the invitation was extended at the request of the Mothers' Club of Miles.

Dr. J. B. McKnight extended an invitation for the society to hold its April meeting at the State Sanitorium stating that the staff of that institution would furnish the program. Both invitations were accepted by vote of the Society.

Van Zandt County Medical Society met at Canton, February 5, with nine members and four visitors present. The visitors were: Drs. M. E. Lott, C. Frank Brown and Edward E. Smith of Dallas, and Andrew J. Kellam of Canton.

Interesting clinical cases were presented by Drs. Ben B. Brandon, V. B. Cozby and F. V. Bryant.

Dr. C. Frank Brown of Dallas read an interesting paper on diabetes.

Dr. M. E. Lott of Dallas discussed the subject of proper technic in radical operations for inguinal hernia.

Drs. V. Bascom Cozby and Wiley L. Garland of Grand Saline and Robert L. Gray of Ben Wheeler were appointed as a committee to draft resolutions upon the death of Dr. William Augustus Allen.

Victoria-Calhoun Counties Medical Society met at Victoria, December 16, and elected the following officers for 1926: President, Dr. F. B. Shields; vice-president, Dr. J. V. Hopkins; secretary, Dr. J. H. Lander; censor, Dr. J. O. Hicks; delegate, Dr. R. W. Ward; alternate delegate, Dr. A. C. Shields, all of Victoria.

The Seventh District Medical Society met at Austin, February 18, in the Marie Antionette Room of the Stephen F. Austin Hotel, with more than 125 physicians in attendance.

The following scientific program was enjoyed: "The Relation of the Physician and Surgeon," Dr. C. E. Durham, Austin; "Impacted Ureteral Stones," Dr. W. W. Sherwood, Temple, Discussion opened by Dr. John C. Thomas, Austin; "The Romance of Medicine," Dr. I. L. McGlasson, San Antonio; "Some Glandular Insufficiencies," Dr. Claude Uhler, Dallas, Discussion opened by Dr. H. L. Hilgartner, Austin; "Septic Meningitis of Otitic Origin," Dr. J. M. Robison, Houston, Discussion opened by Dr. M. H. Boerner, Austin; "The Treatment of Peptic Ulcer," Dr. W. Burton Thorning, Houston, Discussion opened by Dr. S. E. Hudson, Austin; "Three Interesting Urological Cases," Dr. J. Harolde Turner, Houston, Discussion opened by Dr. Lee E. Edens, Austin; "Pneumonoconiosis," Dr. Livingston Anderson, Austin, Discussion opened by Dr. J. J. Brady, Austin; "Treatment of the Late Toxemias of Pregnancy," Dr. Robert H. Johnston, Houston, Discussion opened by Dr. A. F. Beverly, Austin; "Dick and Dick Serum," Dr. Z. T. Martin, Austin, Discussion opened by Dr. G. M. Graham, Austin; "Extraction of Senile Cataract in a Chronic Glaucomatous Eye with Subsequent Iridotomy," Dr. P. E. Suehs, Austin, Discussion opened by Dr. J. R. Nichols, Austin.

Luncheon was served the Society in the East Room of the Hotel, the Travis County Medical Society acting as hosts.

A meeting of the Woman's Auxiliary was held in conjunction with the meeting of the Society.

At the business meeting of the Society, Dr. Hugh S. McKeown of Austin, was elected President, Dr. W. H. Pettus of Georgetown, re-elected Vice-President, and Dr. J. J. Brady of Austin, Secretary.

The next meeting of the Society will be at Austin in July.

CHANGES OF ADDRESS.

Dr. C. H. Standifer, from San Antonio to Dallas.
Dr. C. D. Franklow, from Pilot Point to Dallas.
Dr. W. C. Howard, from Nacogdoches to Appleby.

Dr. Frank Childs, from Pecan Gap to Honey Grove.
Dr. W. J. Johnson, from Austin to San Antonio.
Dr. E. G. Smith, from Malone to Mercedes.
Dr. C. E. Smith, from Talpa to Rockwood.
Dr. J. W. Boyle, Jr., from Richmond to Shiner.
Dr. W. R. Russell, from Purdon to Tyler.
Dr. D. E. Smallhorst, from El Paso to Los Angeles, California.
Dr. J. R. Mahone, from Pharr to Edinburg.
Dr. S. A. Watts, from Pendleton to Marlin.
Dr. W. W. Lowery, from Hillsboro to Mesquite.
Dr. R. A. Duncan, from Graham to Amarillo.
Dr. Wallace J. Masters, from Knox City to Wichita Falls.

DEATHS

Dr. Monroe Anderson died at his home at Dallas, January 25, 1926.

Dr. Anderson was born in White County, Tennessee, August 23, 1846. He attended school in Louisville, Kentucky, and Nashville, Tennessee, graduating from the University of Tennessee in 1888. He practiced for a time in Overton County, Tennessee, and then came to Texas, where he practiced in Ellis County, after which he returned to Tennessee and located at Sparta and later at McMinnville. Returning to Texas he practiced in Kaufman, Childress and McLennan Counties. He was County Health Officer of Childress in 1920, and while serving in this capacity he underwent a serious illness from which he never fully recovered. For the past five years he had lived in Dallas, and while practically an invalid, he took great interest in medical affairs and enjoyed reading medical journals and keeping up with the affairs of his County and State Medical Associations.

Dr. Anderson was always greatly interested in organized medicine and was for many years an active and valued member of Kaufman, Childress and McLennan County Medical Societies, successively, and of the State and American Medical Associations. He was a member of the Woodmen of the World.

Dr. Anderson is survived by his wife, by two sons, Frank Anderson of Allentown, Pennsylvania, and Wiley Anderson of Fort Worth; by two daughters, Mrs. Guy Nunnelly of Dallas and Mrs. Oliver Vaughn of Cleburne; three brothers, W. B. Anderson of Lancaster, J. W. Anderson of Dallas, and C. C. Anderson of Grand Saline; and by four grandchildren.

Dr. Thomas G. Calhoun of Tenaha, Shelby County, Texas, died January 23, 1926, from a fracture of the base of the skull as a result of an automobile accident.

Dr. Calhoun was born near Spring Ridge, Louisiana, December 26, 1871. He attended the common schools of Caddo Parish, Louisiana, and later attended two courses of lectures at the Atlanta Medical College in Georgia. He received his certificate to practice medicine in Texas in May of 1895, since which time he had practiced at Tenaha. He was for many years a faithful member of Shelby County Medical Society and of the State and American Medical Associations. He was also an active member of the South Texas District Medical Society.

Dr. Calhoun was married to Miss Sebastian of Caddo Parish, Louisiana, who, with one son, John Parish of Nacogdoches, survive him.

Dr. J. H. Payne died at his home at Columbus, Texas, November 26, 1925.

Dr. Payne was born at Coffeeville, Mississippi, April 21, 1852, and moved with his parents, Dr. and Mrs. J. H. Payne, Sr., to Waco, Texas, when he was a small boy. He returned to Mississippi, but when he became grown he moved back to Texas, locating at Rogers, Bell County, where he served as agent for the Santa Fe Railroad until 1883, when he with his family moved to Memphis, Tennessee, where he attended the Memphis Hospital College of Medicine, moving from there to Holland, Bell County, where he built up a large practice. In 1907 he located at Columbus, Texas, where he soon established a splendid practice. He served for several years as County Health Officer of Colorado County and during the War was chairman of the Draft Board

DR. J. H. PAYNE.

in his community. Due to overwork and to an attack of influenza he had been in ill health for several years. Dr. Payne had always been greatly interested in organized medicine and up to the time that ill health forced him to practically retire from practice he was an active and interested member of Bell and Colorado County Medical Societies successively, and of the State and American Medical Associations. He was a member of the Knights of Pythias. He was a man of strong convictions and high principles and took an active interest in all civic affairs.

Dr. Payne is survived by four sons, J. H. Payne, Jr., of Stamford, H. B. Payne of Davilla, S. R. Payne of Fort Worth, and W. D. Payne of Rule; and by one daughter, Mrs. Adelaide Payne Hiner of Columbus, Texas.

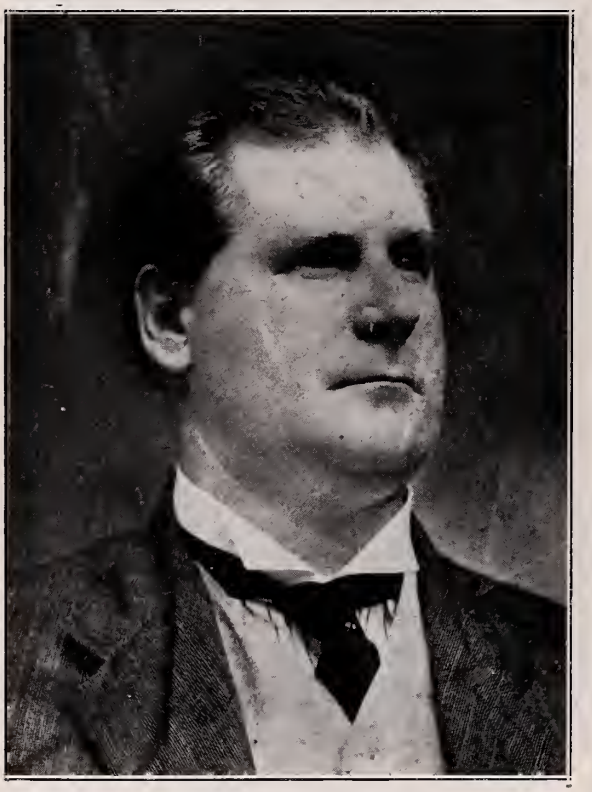
Dr. Amos C. Walker died at his home in Fort Worth, January 13, 1926.

Dr. Walker was born in Nacogdoches, Texas, in August, 1851. He was the son of the Hon. R. S. Walker of Kentucky, who was appointed to the Supreme Court of Texas by Governor Coke, and of Elizabeth Clark of Nacogdoches.

He attended the University of Virginia and then entered the Bellevue Hospital Medical College of New York, from which he graduated at twenty years of age. He had to return the following year

to receive his diploma, owing to the fact that under the laws of that State he could not receive a diploma until he was of age. Upon receiving his diploma he went to New Orleans and took a postgraduate course at Tulane University.

He returned to his home in Nacogdoches in 1873, where he practiced medicine for one year and then moved to Rockdale, Texas, where he practiced for nineteen years and was associated with Dr. Horton. In 1873 he moved to Fort Worth, where he practiced for a short time, returning to Rockdale, but



DR. H. C. WALKER.

later moving to Fort Worth again, where in association with Dr. E. J. Beall he founded the Florence Sanitarium on Broadway. Later, in conjunction with Dr. W. A. Adams he established the Protestant Sanitarium on South Main street. He achieved an enviable reputation throughout the State as a surgeon of rare ability. He was one of the organizers of the Fort Worth Medical College and was Professor of Anatomy and Clinical Surgery in that institution for a number of years.

For the past ten years he had retired from practice owing to ill health, but he maintained a lively interest in medical affairs and kept up with the progress made in scientific medicine through his reading. During his active years in practice he was an untiring worker for organized medicine, being a member of the Tarrant County Medical Society and of the State and American Medical Associations. He was a member of the Rockdale Masonic Lodge, and affiliated with the Episcopal Church.

Dr. Walker was married to Miss Gertrude Wright in 1878 at Rockdale, Texas, to which union were born three daughters and two sons. His first wife having died, he was married February 17, 1900, at St. Louis, Missouri, to Miss Lelene Wright, a sister of his first wife. To this union was born one son, John C. Walker, of Dallas.

Dr. Walker is survived by his widow and by three daughters, Mrs. J. W. Davis, Mrs. C. W. Head and Miss Marguirite Walker of Fort Worth, and three sons, W. W. Walker of Waco, R. S. Walker of Los Angeles, and John C. Walker of Dallas.

BOOK NOTES

Diseases of Children for Nurses. Including Pediatric Nursing, Infant Feeding, Therapeutic Measures Employed in Childhood, Treatment for Emergencies, Prophylaxis and Hygiene. By Robert S. McCombs, M. D., Associate in Medicine at the Philadelphia Polyclinic; Instructor of Nurses at the Children's Hospital of Philadelphia. Fifth Edition, Thoroughly Revised. 12mo., Cloth, 581 Pages, Illustrated. Price, $2.75. W. B. Saunders Company, Philadelphia and London, 1925.

This excellent textbook for nurses on infant feeding and the treatment of diseases of children has for many years been adopted as a standard in many nurses' training schools. The Fifth Edition is a complete revision and brings the book up to date. The comparatively new work of the Dicks on scarlet fever is incorporated as well as other advances such as the toxin-antitoxin active immunization for diphtheria, the use of insulin in diabetes, etc. The book is well illustrated and the color plates showing the characteristic eruptions of the principal exanthemata are exceptionally good. The book is, on the whole, admirably suited to its purpose.

Personal Hygiene Applied. By Jesse Feiring Williams, M. D., Professor of Physical Education, Teachers College, Columbia University, New York City. Second Edition, Revised. 12mo., Cloth, 414 Pages, Illustrated. Price, $2.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

This book is especially written for college students and for teachers, nurses and social workers. It is such a book as the doctor may readily recommend to parents or patients as a guide for correct living. The chapter on "Science and Attitudes" is especially good, briefly depicting as it does the false position of pseudo-scientific cults. The chapter on "Hygiene of the Sexual Aspects of Life" is also a masterpiece. The facts concerning this complex and difficult subject are dealt with frankly and yet with such delicacy as to cause no offense. The author well points out in his book that the mere following of health formulas and routine will not necessarily mean good health. One might well paraphrase a familiar quotation by substituting "hygiene" for "liberty." It is a pleasure to turn from the nauseating dissertations of those whom Dr. Fishbein in "The Medical Follies," has aptly defined as the "Big Muscle Boys," to a simple, practical and scientific discussion like that presented by Dr. Williams in this volume.

Recovery Record For Use in Tuberculosis. By Gerald B. Webb, M. D., Consulting Physician, Cragmor, Glockner and Sunnyrest Sanatoria, and Charles T. Ryder, M. D., Colorado School of Tuberculosis, Colorado Springs, Colorado. Second Edition, Revised. 12mo., Cloth, 188 Pages. Price, $2.00. Paul B. Hoeber, Inc., New York City, N. Y.

This little book has been conceived by these two well known authorities on tuberculosis, as a guide for the patient in the usually difficult road to recovery. The first 79 pages consist in wholesome advice to the tuberculous patient, concerning the care necessary on his part in order that he might do nothing to retard the healing process. This book

contains much helpful philosophy and is enlivened with frequent apt quotations and pervaded with sparkling wit designed to cheer and invigorate the despondent. The remainder of the book contains well constructed charts to be used by the patient in recording his daily temperatures, pulse rate, weight and such remarks as he cares to make. There are a sufficient number of these charts to last for a period of two years.

Pharmacopoeia of the United States of America. Tenth Decennial Revision (U. S. P. X.). By Authority of the United States Pharmacopoeial Convention held at Washington, D. C., May 11, 1920. Prepared by the Committee on Revision and Published by the Board of Trustees. Official from January 1, 1926. 8vo., Cloth, 626 Pages. Agent J. B. Lippincott Company, Philadelphia, Pennsylvania.

This invaluable work presents a paradox in that instead of becoming larger in each edition, as most volumes do, it is constantly decreasing in size, and yet, to carry out the paradox still further, this very contraction adds to its value for it has brought about the elimination of large numbers of drugs and materials formerly held to be of medicinal value, which have been proven by modern scientific methods to have no therapeutic value. Pure gold has far greater value than many, many times its weight of gold ore in which the dross must be separated from the metal. The same general principles have been followed as in previous editions. The dosage of drugs is given in the metric system, but the English equivalents are given in parenthesis. Only forty new articles have been added to the Tenth Edition of the Pharmacopoeia, while nearly two hundred articles appearing in the Ninth Edition have been deleted. Many changes in nomenclature have been made, such changes being in the interest of simplicity; for example, such a cumbersome term as Acidum Phenylcinchoninicum has been changed to Cinchophenum. This book is of such incalculable value to the pharmacist and the physician that it has well been termed the "Bible" of the pharmacist.

Bats, Mosquitoes and Dollars. By Charles A. R. Campbell, M. D., San Antonio, Texas. 12mo., Cloth, 262 Pages, Illustrated. Price, $3.00. The Stratford Company, Publishers, Boston, Massachusetts, 1925.

The author tells us in his preface that this book is the result of more than twenty years careful observation and study of the question of malaria, the malaria-carrying mosquito, and the arch enemy of both, that mysterious and little understood creature, the bat. When one thinks of bats, one usually has visions of graveyards, church steeples, hobgoblins, witches, and the like. The appearance of the bat is on superficial inspection one to inspire a feeling of disgust, and the odor of the creature does not mitigate this feeling. On more careful examination, however, one is impressed with the delicate structure of this peculiar little creature which seems to be neither fish, flesh nor fowl. Nature has wonderfully adapted him to his life work of destruction of insects, and especialy of mosquitoes. One must indeed be a true lover of nature to keep the uncomfortable nocturnal vigils that the author was compelled to carry out in order to make scientific observations of this creature's life and habits.

As a result of these observations the author built his Mitchell's Lake Bat Roost as a safe haven in which the bats could multiply without being molested by their many natural enemies. Into Mitchell's Lake is poured the entire sewage from the city of San Antonio, and so this pool of reeking, stagnant water forms an ideal breeding place for the food of the bat, the mosquito. Testimonials are given by families living near this locality concerning the difference between the mosquito menace, and the consequent incidence of malaria, before the bat roost was built and afterwards. One may wonder from the title what relation bats and mosquitoes might have to dollars. The salvaging of human life and health by the destruction of the malaria-bearing mosquito by the bat, of course, represents an incalculable service hardly measurable in terms of dollars. Besides this, the sale of the guano accumulating in the bat roosts brings quite a handsome return. For the year 1921, the astonishing amount of 4,558 pounds of guano was taken from the Mitchell's Lake Roost. A number of bat roosts have been erected in San Antonio, according to Dr. Campbell's specifications, and, indeed, several have been erected in foreign countries, notably in the Pontine Marshes of Italy, where malaria has throughout the centuries taken such a terrible toll of life and health. No less an authority than the great naturalist, Ernest Thompson Seton, has paid Dr. Campbell a delicate compliment on his work by stating that the latter's observation on bats and mosquitoes are considered by him to be as valuable as if they were his own. The results of Dr. Campbell's work have been published in nearly every civilized language, and he has been highly complimented on his scientific efforts by health authorities the world over.

The volume is divided into four parts, the bulk of it being upon the subject of the bat and the mosquito. Part II contains a dissertation on dragon flies. Part III gives experiments of the author in his endeavor to show that smallpox is transmitted only by bedbugs. The argument presented in support of this theory is not convincing. Under Part III is included a chapter written by Dr. J. A. Watts of San Antonio, concerning his experiences in the treatment of smallpox in Mexico, being a sort of a testimonial to the correctness of the theory advanced by Dr. Campbell that the bedbug is the sole conveyor of smallpox. Part IV is a short chapter on The Function of the Spleen. It is argued that the principal function of the spleen is the destruction of such ganisms as those of malaria, as shown by the relatively large spleen of the bat, the natural food of which is the malaria-bearing mosquito.

Though one may not agree with the author in all of his conclusions, the book will certainly hold his close attention. One can hardly pick up the volume without reading it through. To the student of nature it should prove a very interesting and instructive volume.

Middle Age and Old Age. By Leonard Williams, M. D. 8vo., cloth, 296 pages. Price $3.25. The Oxford University Press. American Branch, 35 West 32nd Street, New York City.

Dr. Williams has written a very pleasing essay on the common infections of middle age and old age. He concludes his preface with the following statement: "The principles on which the habits and customs of the individual are based have suffered no change, have certainly undergone no improvement in the last half century. Save perhaps in the matter of excessive alcohol, the generation which is now in the vigour of life commits the same indiscretions and improprieties, and defends them with the same shibboleths, as their grandfathers did, with the result that metabolic disease shows no diminution either in frequency or deadliness. It is largely in the hope of awakening a sense of the pity of it all, and the folly, that I have written the following pages."

It would seem from this introduction, and also from a perusal of the book, that the author has written for the man who had reached what he calls the

"Summit Plateau," and also for the one who has begun the downward journey when the catabolic processes are in the ascendency. It must be, however, that the volume is intended as advice to the physician under whose care such patients come, rather than for the patients themselves, as the terms used are hardly understandable by even the lay patient of more than average intelligence. It is interesting to note that the author prescribes a patent medicine for the treatment of the dyspepsia of his English patients although he calls America "the home of dyspepsia." The snuff treatment of rhinitis, which he quotes Sir Hermann Weber as advising, would hardly find favor in this country.

1924 Collected Papers of the Mayo Clinic and Mayo Foundation. Rochester, Minnesota. 8vo., Cloth, 1331 Pages, 254 Illustrations. Price, $13.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

This volume is entirely similar to its predecessors and its scope and value are familiar to the majority of American practitioners. All papers from the Mayo Clinic and Mayo Foundation are included in this volume, complete, abridged, abstracted or by title. Those articles which by reason of their technicality are not considered of interest to the general practitioner or general surgeon, are published in abstract or by title. The papers are divided into the following general groups: Alimentary Tract; Urogenital Organs; Ductless Glands; Blood and Circulatory Organs; Skin and Syphilis; Head, Trunk and Extremities; Brain, Spinal Cord, and Nerves; Technic; Miscellaneous. The book is truly a storehouse of information concerning modern methods of diagnosis and treatment.

The Early Diagnosis of the Acute Abdomen. By Zachary Cope, B. A., M. D., M. S., Lond., F. R. C. S., Eng., Senior Surgeon to Out-Patients, St. Mary's Hospital, Paddington, etc. Third Edition. 12mo., cloth, 233 pages, illustrated. Price $3.80. Oxford University Press. American Branch, 35 West 32nd Street, New York City.

The first three chapters of the volume are devoted to a general discussion of the principles involved in the diagnosis of acute abdominal conditions. The succeeding chapters are devoted to the more common acute abdominal diseases. The author has made original observations and has recorded these observations in a clear and understandable form. The fact that although the book did not appear until 1921 it has passed through three editions, is good evidence of its worth.

Thoracic Surgery. The Surgical Treatment of Thoracic Disease. By Howard Lilienthal, M. D., F. A. C. S., Professor of Clinical Surgery at Cornell University Medical School. Two 8vo. volumes in cloth, totaling 1294 pages, with 90 illustrations, 10 in colors. Price $20.00. W. B. Saunders Company, Philadelphia and London, 1925.

This monumental work on thoracic surgery could come with better grace from no other pen than that of Dr. Lilienthal, who has long been recognized as an authority in this difficult and little understood realm of surgery. European surgeons have developed this field far more thoroughly than have those in America, for some unexplainable reason, with few notable exceptions. The thorax has long been a *noli me tangere* for the surgeon. In this respect it resembles the abdomen of but a few decades ago. To enter it was held to be synonymous with the bringing about of the death of the patient. With better knowledge of the physiology of the thoracic viscera and with more accurate knowledge of the anatomy of this region, and with improved operative methods and ingeniously devised instruments, a new field for surgery has been opened up and many cases formerly condemned to die have been given a chance for life. Added to a tremendous experience in civilian life, Dr. Lilienthal had a wonderful clinical opportunity as head of an operating team in Evacuation Hospital No. 8 in France, whose work was confined almost exclusively to the treatment of wounds of the chest.

Special chapters have been contributed on Physiology by Dr. Evarts A. Graham of St. Louis; on Röentgenology by Dr. Leopold Jaches of New York City; on General Anesthesia by Dr. William Branower of New York City; on Blood Transfusion by Dr. Reuben Ottenberg of New York City; on The Intravascular Treatment of Thoracic Aneurysm by Dr. William Chittenden Lusk of New York City; and on Pulmonary Tuberculosis; Its Treatment by Induced Pneumonothorax by Drs. J. Burns Amberson, Jr., and Andrew Peters of Loomis, New York.

Especially interesting are the chapters on the surgical treatment of pulmonary tuberculosis, which disease has long been considered almost entirely within the domain of the internist. The concluding chapter on Military Surgery is intensely interesting and very instructive, and should be of great value to those engaged in industrial practice where injuries are received entirely comparable to those received in battle. The numerous well selected and well executed illustrations add materially to the value of the clearly written text in addition to graphically demonstrating the value of radiography in thoracic surgery.

An Introduction to Objective Psychopathology. By G. V. Hamilton, M. D., Director of Psychobiologically Research, Bureau of Social Hygiene, Inc., New York City, With Foreword by Robert M. Yerkes, Ph. D., LL. D., Professor of Psychology, Yale University. 8vo., cloth, 354 pages. Price $5.00. The C. V. Mosby Company, St. Louis, U. S. A.

This volume, unlike Gaul, is divided into two parts. The first is entitled Clinical Psychopathology, and is divided into three chapters, comprising about two-thirds of the book. After an interesting introductory chapter in which the purpose of the book is clearly outlined, follows Chapter II which contains an analysis of two hundred nervous cases. Chapter III gives a summary of the cases discussed in the preceding chapter, classifying these cases under a number of different heads, and giving the procedure adopted by the author in dealing with nervous patients. Part II is designated Principles of Objective Psychopathology, and is divided into nine chapters as follows: Chapter I, The Foundations of Psychopathology; Chapter II, Neural Morphology, Neural Physiology, Endocrinology; Chapter III, Comparative Studies of Reactions to Baffling Disadvantages; Chapter IV, Habit Formation; Chapter V, The Relation of Inhibition of Responsiveness to Indirect Responsiveness; Chapter VI, Unsatisfied Major Cravings; Chapter VIII, Reactions to Inferiority; Chapter IX, Sexual Behavior. This book is extremely interesting and should prove profitable to the general practitioner as well as to the neuropsychiatrist. As these mental cases usually consult the general practitioner first, it is a pity that the average physician does not appreciate more fully his responsibility in such cases, as upon his tact and wisdom in their handling usually depend the chances of the patient for recovery. It is believed that the author has thrown considerable light upon a very difficult and little understood subject.

Texas State Journal of Medicine

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Vol. XXI **April 1926** **No. 12**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH OF TEXAS

Last Call Dallas Meeting A. M. A.—The medical profession of Texas is now confronted with the greatest opportunity it has ever had, and doubtless the greatest opportunity it will have for many years to come, to rub elbows with the big men of medicine and gain direct mental contact with the biggest thoughts in medicine. It is to be hoped that no Texas physician who can afford to take the time and spend the money necessary to visit Dallas during the week of April 19, will fail to do so. And just here let us urge that members who have not done so, lose no time in paying their State Association dues, in order that they may register at the Dallas session of the A. M. A., expeditiously and without complications.

Registration.—Let us make the necessary steps perfectly clear, for the benefit of those who do not already know the *modus operandi:* (1) Pay state dues to county society secretary and urge that they be forwarded at once to the State Secretary; (2) failing to do this, call for the representative of the State Secretary, who will be on duty at the office of registration in Dallas, and present the State dues ($10.00), together with written authority from the county society secretary to thus pay the same; (3) having received State Association membership card, present the same, together with $5.00 in money, to the proper window at the place of registration and receive A. M. A. Fellowship card, and at the same time register attendance on the session. It cannot be done any other way. The State Secretary cannot receive membership dues from members direct. The county society secretary must authorize him to do so. Only Fellows of the A. M. A. can register at the annual sessions of that organization, and only members of state associations can become Fellows.

Official Call

To the Officers, Fellows and Members of the American Medical Association:

The seventy-seventh annual session of the American Medical Association will be held in Dallas, Texas, from Monday, April the nineteenth to Friday, April the twenty-third, nineteen hundred and twenty-six.

The House of Delegates will convene on Monday, April the Nineteenth.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, April the twentieth at 8:30 P. M.

The various sections of the Scientific Assembly will meet Wednesday, April the twenty-first at 9 A. M. and at 2 P. M. and subsequently according to their respective programs.

William D. Haggard, President
Frederick C. Warnshuis
Speaker, House of Delegates

Attest:
Olin West, Secretary

Chicago, Illinois, February the eighteenth

The registration department will be open from 8:30 a. m. until 5:30 p. m., Monday, Tuesday, Wednesday and Thursday, the 19th, 20th, 21st and 22nd, and until noon on Friday, April 23. It will not be too late to register until one minute past noon on Friday, April 23, which fact we desire to state quite impressively. The registration office, scientific and commercial exhibits and all meetings, will be at the Fair Grounds, easily accessible to the business districts and all hotels.

Railroad Rates have been granted on the usual one and one-half fare round trip basis on the "certificate" plan. That means that those who desire this rate should ask the agent at the time of purchase of tickets, for a *certificate* (not a receipt), which certificate must be filed with the Secretary of the A. M. A. immediately upon registering, who will endorse the same over to the representative of the railroads for validation, after which return trip over the same road or roads used in the first instance, may be purchased at one-half fare. The rates cannot be obtained in any other way. It will be useless to ask for refund or adjustment, no matter what the reason therefor. Occasionally a station agent will not furnish the certificate requested, which is a matter between the purchaser and the aforesaid agent, into which it will be hard to bring the railroad company. The agent may get fired but the purchaser will not get his money back.

The time limit for the return trip has been extended to May 12, provided those who desire to take advantage of the extension will file their certificates with the joint agents at Dallas, paying a fee of $1.00 each. This applies to Texas completely, but only to certain groups of railroads from out of state.

Hotel Reservations have been made for something over five thousand people, which is by way of indicating the correctness of our prediction, made long ago, that this meeting would be largely attended. It is not, as might be readily surmised, an indication that there will be that many (of those registering) who will attend. We are informed that investigation discloses that reservations have in many instances been made by the same individuals in more than one hotel. That is, of course, an essentially wrong system, but conditions in that respect cannot at this time be bettered. The point is, there will be vacancies in hotels that are now apparently full up and that have closed their reservation list. The complaint from those in charge of this matter is that each doctor thinks his is an individual and peculiar case, deserving of special consideration, the said special consideration usually consisting of a large room with bath and at a very moderate rate, in the largest and most expensive hotel in the city. As we have said before, the large hotels are not the only good hotels in Dallas; indeed, some of the smaller hotels are in every way as convenient and as high class. It is not the case in Dallas as it is in some other parts of the country, that the smaller hotels are generally more or less shady from the standpoint of morals and social status. The hotel committee is there to see that no hotel of this sort is officially offered to visitors. The way to go at getting hotel reservations is to write to the hotel committee, of which Dr. M. P. Stone, Medical Arts Building, is the chairman, or, which probably means the same thing, to the Dallas Chamber of Commerce, stating what sort of accommodations are desired, and then sit tight. We know of one case in which an insistent and proper demand for certain hotel accommodations were at first refused but subsequently granted. The sort of reservation required was forfeited by someone else.

The Entertainment Features of the occasion are so bewildering that we hesitate to discuss them. Indeed, we will not undertake to do anything of the sort. Suffice it to say that there will be all that the law allows and perhaps just a little bit more. If we are correctly informed, it will be a difficult matter for a doctor to remain in and about Dallas during the week of April 19 without being entertained, whether or not he wants to be so treated. Married men who leave their wives at home may be embarrassed. Not that any wild women will run away with them, or anything of the sort, but to the wife who stays at home, all women at the place of entertainment are more or less wild, and the Woman's Auxiliary over in Dallas say

that the matter of entertaining the visiting women is a small one and there will be plenty of time to spare for the entertainment of visiting doctors; at least, so far as the women are concerned.

The big typical Southern barbecue to be given by Dr. Dean, referred to last month, is worth making the trip for. The beef to be barbecued on this occasion has been raised from calfhood for barbecue purposes, and the feeding and grooming received is supposed to produce the maximum gastronomic satisfaction possible in this sort of a feed—and we can imagine nothing better. The preparation of the meat for the occasion will be in the hands of experts.

The Medical Veterans of the World War will meet at a dinner Monday, April 19, in the banquet hall of the Scottish Rite Cathedral, at 7:00 p. m. All veterans, and medical officers of the Army, Navy, Marine Hospital and Public Health Service, will be eligible to attend. The cost per plate will be $2.50 and, we understand, tickets will be on sale near the place of registration. Drs. John S. Turner, John O. McReynolds, J. W. Bourland, DeWitt Smith and F. A. Pierce of Dallas, constitute the committee in charge of this function.

The list of honor guests who have thus far accepted invitations to attend, includes the following: Dr. M. W. Ireland, Surgeon-General U. S. Army; Dr. Hugh S. Cummings, Surgeon-General U. S. Public Health Service; Dr. W. D. Haggard, President of the A. M. A.; Dr. Wendell C. Phillips, President-Elect of the A. M. A.; Dr. A. T. McCormack, Secretary Medical Veterans of the World War; Drs. Wm. J. Mayo of Rochester, Minnesota, Hugh H. Young of Baltimore, E. C. Ellett of Memphis, Tennessee, Allen Greenwood, Geo. S. Derby and Walter B. Lancaster of Boston, and Walter R. Parker of Detroit.

The Alumni of the Louisville Medical Schools are planning to hold the largest reunion at Dallas, April 21, ever held in connection with an annual session of the American Medical Association. Dr. Irvin Abell (Louisville Medical College '97), president of the Southern Surgical Association and of the Kentucky State Medical Society, will give an address on "The History and Early Development of Medical Education in Kentucky," illustrated with moving pictures and portraits of Kentucky pioneer physicians. There will be a dinner at the Adolphus Hotel at 7 p. m., followed immediately by the entertainment. All graduates of the Louisville medical schools are urged to be present, and they are requested to notify Dr. Charles M. Rosser, president of the Texas committee of Louisville graduates, Medical Arts Building, Dallas.

The A. M. P. O. Medical Fraternity will make an extra effort to gather together a large number of members of that organization for a luncheon. Dr. Ramsey H. Moore, Medical Arts Building, Dallas, is chairman of the committee in charge.

Periodic Health Examination Clinic.—Of special interest right now will be the demonstrations of periodic health examinations to be made under the supervision of the Bureau of Health and Public Instruction of the A. M. A. These will be held in Hall F, Automobile Manufacturers Building, Fair Park, beginning at 9:00 a. m. and 4:30 p. m., Monday and Tuesday, April 19 and 20.

The Diagnostic Clinics to be conducted on Monday, the 19th, will be of special importance. So important do we consider this feature of the meeting that we give the program in full, notwithstanding the crowded condition of the JOURNAL at this time. Each clinic will be held in the Hall designated in the program as the meeting place for its section. The list follows:

Medicine.—From 9:00 to 10:30 a. m., Dr. H. A. Christian of Boston, will conduct a clinic on (a) Acute Nephritis; (b) Chronic Nephritis, with edema; (c) Chronic Nephritis, without edema.

From 10:30 to 12:00 M., Dr. L. F. Barker of Baltimore, will conduct a clinic on (a) Diseases of Internal Secretion; (b) Other Medical Cases of Interest.

Surgery.—From 9:00 to 10:30 a. m., Dr. Carl B. Davis of Chicago, will conduct a clinic on (a) General Surgery; (b) Surgical Cases of Interest; (c) Gall Bladder Visualization, etc.

From 10:30 to 12:00 M., Dr. Frank H. Lahey, Chicago, will conduct a clinic on Goiter.

Obstetrics.—From 10:30 a. m. to 12:00 M., Dr. Frank W. Lynch of San Francisco, will conduct a clinic on (a) Correction of Malposition; (b) Cases Illustrating Points in Obstetric Practice.

Gynecology.—From 9:00 a. m. to 10:30 a. m., Dr. J. O. Polak of Brooklyn, will conduct a clinic on (a) Inflammation of the Pelvis; (b) Gynecologic Cases of Interest.

Pathology.—From 1:30 to 3:00 p. m., Dr. C. C. Bass of New Orleans, will conduct a clinic on (a) Pathological Conference, with material.

Cancer Pathology.—From 3:00 to 4:30 p. m., Dr. Frances Carter Wood of New York City, will conduct a clinic on Cancer Pathology.

Orthopedic Surgery.—From 9:00 to 10:30 a. m., Dr. Philip Kreuscher of Chicago, will conduct a clinic on (a) Fractures in the Femoral Neck, with Non-Union; (b) Acute Suppurative Arthritis of the Hip; (c) Old Fracture of the Shaft of the Femur, with Deformity; (d) Fracture and Dislocation of Carpal Bones.

From 10:30 a. m. to 12:00 M., Dr. Arthur Steindler of Iowa City, Iowa, will conduct a clinic on (a) Nerve and Tendon Injury Cases (Arm and Forearm); (b) Ischemic Paralysis, of the Forearm and the Leg; (c) Clawfoot Deformity (Polio); (d) Leg's Disease; (e) Epiphyseal Separation; (f) Early Tuberculosis.

Urology.—From 1:30 to 3:00 p. m., Drs. Frank Hinman of San Francisco and Bransford Lewis of St. Louis, will conduct a clinic on Cases of General Interest in Urology.

Proctology.—From 3:00 to 4:30 p. m., Dr. Jerome M. Lynch of New York City, will conduct a clinic on Colitis (a) Chronic Ulcerative; (b) Amebic; Cancer of Rectum; Anal Fistula; Stricture (a) Gonorrheal; (b) Luetic. Rectal Abscess.

Otolaryngology.—From 9:00 to 10:30 a. m., Dr. Geo. Schambaugh of Chicago, will conduct a clinic on Cases of General Interest in Otolaryngology.

Ophthalmology.—From 10:30 a. m. to 12:00 M., Dr. Walter Parker of Detroit, Michigan, will conduct a clinic on Cases of General Interest in Ophthalmology.

Pediatrics.—From 1:30 to 3:00 p. m., Dr. H. F. Helmholz of Rochester, Minnesota, will conduct a clinic on Cases of General Interest in Pediatrics.

Neurology.—From 3:00 to 4:30 p. m., Dr. L. J. Pollock of Chicago, will conduct a clinic on Cases of General Interest in Neurology.

Dermatology.—From 1:30 to 3:00 p. m., Dr. Fred Wise of New York City, will conduct a clinic on Cases of General Interest in Dermatology.

Motion Picture Demonstrations.—Perhaps quite as important, and certainly as interesting, will be the program for the moving picture theater. Sometimes we think our members who attend the A. M. A. meetings consider themselves above attending these demonstrations. Perhaps we unconsciously associate with the term "motion picture," the programs we usually witness in moving picture theaters. Such should not be the case. These demonstrations are highly scientific and quite convincing. Monday and Tuesday will be the important days for this program, in view of the fact that the scientific sections begin work in earnest on Wednesday. However, the motion picture theater will be open throughout the meeting. We consider this part of the meeting of sufficient importance to take up a considerable portion of our available white paper. The program follows:

MONDAY.—12:00 M., "Health Twins at Work." Motion picture film. American Social Hygiene Association, New York.

12:30 p. m., "Working for Dear Life." Motion picture film. Metropolitan Life Insurance Company, New York.

1:00 p. m., "Principles of First Aid." Illustrated with motion pictures. R. R. Sayers, U. S. Bureau of Mines, Washington, D. C.

1:15 p. m., "Urologic Examination in Children." Illustrated with lantern slides. Dr. A. I. Folsom, Dallas.

1:45 p. m., "Aneurysm of the Aorta with Demonstration of Gross and Microscopic Specimens." Illustrated with motion pictures. Orrin S. Wightman, New York.

2:00 p. m., "A Story of Pollen Disease." Illustrated with lantern slides. Dr. W. W. Duke, Kansas City, Mo.

2:30 p. m., "Advantages and Technic of Cervical Cesarean Section." Illustrated with lantern slides. J. P. Greenhill, Chicago.

3:00 p. m., "Poisoning of Children by Household Lye: Bronchoscopy in the Treatment of Suppurative Diseases of the Lung." Illustrated with motion pictures and lantern slides. Dr. Gabriel Tucker, Chevalier Jackson Clinic, Philadelphia.

3:30 p. m., "Significance of Circulatory Anomalies in the Production of Peptic Ulcer." Illustrated with lantern slides. Dr. Frank Smithies, Chicago.

4:00 p. m., "Small-Spore Ringworm Infections (Microsporosis)." Illustrated with motion pictures. Clark W. Finnerud, Chicago.

4:30 p. m., "Diagnostic Problems of the Heart and Lungs." Illustrated with lantern slides. Dr. Stewart R. Roberts, Atlanta, Ga.

5:00 p. m., "The Relation Between Practice and Theory in Cancer." Motion picture film. American Society for the Control of Cancer, New York.

TUESDAY.—9:00 a. m., Pasteur, I, II, III." Motion picture film. This film, a history of the life and work of Louis Pasteur, is a gift to the U. S. Department of Agriculture from the French Government. U. S. Department of Agriculture, Washington, D. C.

9:45 a. m., "Aural Quackery and Pseudomedicine." Illustrated with lantern slides. Dr. Arthur J. Cramp, *The Journal A. M. A.*, Chicago.

10:50 a. m., "Recent Research Work on Speech and Audition." Illustrated with motion pictures. Harvey Fletcher, New York.

10:45 a. m., Diagnostic Characteristics of Urogenital Diseases." Illustrated with lantern slides. Frank Hinman, San Francisco.

11:15 a. m., "Diagnostic Problems in Urology." Illustrated with lantern slides. Herman L. Kretschmer, Chicago.

11:45 a. m., "Demonstration of Swallowing in Cardiospasm, the Method of Treatment and the Results Obtained." Illustrated with motion pictures. H. J. Moersch (in collaboration with P. P. Vinson), Rochester, Minnesota.

12:00 M., "Fractures." Illustrated with lantern slides, specially prepared at request of Committee on Scientific Exhibit. Drs. Frederick J. Cotton, Robert B. Osgood and Charles L. Scudder, Boston.

12:30 p. m., "Posture." Motion picture film. United States Children's Bureau, Department of Labor, Washington, D. C.

1:00 p. m., "The Vascular Disturbances of the Extremities." Illustrated with lantern slides. George E. Brown, Rochester, Minnesota.

1:30 p. m., "Normal Labor and Eclampsia." "Illustrated with motion pictures and lantern slides. Carl Henry Davis, Milwaukee.

2:15 p. m., "How the Pathology Determines the Election of Radium or Operation in Fibroid Tumors."

Illustrated with lantern slides. John Osborn Polak, Brooklyn.

2:45 p. m., "Differential Diagnosis of Cancer and So-called Precancerous Lesions." Illustrated with lantern slides. W. H. Mook, St. Louis.

3:15 p. m., "Available, Simple and Feasible Methods of Approximate Functional Diagnosis in Chronic Nephritis." Illustrated with lantern slides. Dr. Frank Billings, Chicago.

3:45 p. m., "The Mercury Combining Power of Blood and the Salivary Urea Index, Two New Simple Renal Function Tests." Illustrated with motion pictures. P. S. Hench, Rochester, Minnesota.

4:00 p. m., "High Blood Pressure." Illustrated with lantern slides. James S. McLester, Birmingham, Alabama.

4:30 p. m., "Digitalis and Diuretics in Heart Disease Showing a Regular Pulse." Illustrated with lantern slides. Dr. Henry A. Christian, Boston.

5:00 p. m., "Aneurysm of the Aorta with Demonstration of Gross and Microscopic Specimens." Illustrated with motion pictures. Orrin S. Wightman, New York.

5:15 p. m., "Principles of First Aid." Illustrated with motion pictures. R. R. Sayers, United States Bureau of Mines, Washington, D. C.

The Program for Our State Meeting appears in this number of the JOURNAL, as per requirement of the By-Laws. We will defer our comments until the May number, in view of the American Medical Association emergency, and in order not to play the one meeting against the other. We hope, however, that our readers will make it a point to look over this program, carefully and understandingly. It will be found to be quite attractive, from whatever angle it is viewed. The meeting will take place more than a month after the American Medical Association meeting in Dallas, which will give us all time to get back to normal. Indeed, it will be a good opportunity for us to taper off. It won't be so much of a taper, at that. We are counting on the usual attendance and the usual interesting experience. If there are any errors of omission or commission, we hope to have them pointed out to us before the reprints are run off—which will be real soon.

In the meantime, there is the usual illustrated story of the place of meeting, which will prove quite interesting. We are not prepared to vouch for the truthfulness of all of the assertions made in this article, this being the one time when we allow the other fellow to talk his head off, but we are prepared to say that if there is a city in this whole country that is developing more rapidly and in a more interesting manner, we do not know anything about it. Of course, we have not been everywhere, but we have been more places than was perhaps good for us, at that. And we do not take any stock in this claim of up-state rivals of Houston that the catfish in the ship channel complained of sun-burned backs this summer. On the contrary, while we admit that there are some big catfish in this channel, there is channel enough there to take care of ocean-going vessels, because we have seen them at the wharfs in Houston and merrily dodging the cypress stumps on their way in and out this up-state port. And then, Galveston is not far away and May is a good month in which to take that annual bath.

The Time Limit on Payment of Dues has expired. According to the law, if not the gospel, there are nearly if not more than a thousand delinquents. Up to April 1, there are 1822 members reported as in good standing. Because of the inability of the office force to keep up with the payment of dues and the receipt of annual reports, there will be many additional members to get on the good-standing list in due time. As for that, the State Secretary is kind-hearted and long-suffering and will do his best to include everybody in his report. There is a technical matter involved, however, that neither the Secretary nor any other agency of the Association can overcome.

The minute the annual report of the county society secretary reaches the office of the State Secretary, that minute all physicians in the county whose names are not on the roster of the membership reported, are thereby definitely designated as non-members. And while those who were members last year may reinstate at any time during this year simply by the payment of dues, the fact remains that there is a definite period of time between January 1 and the date of actual payment of dues when reinstated members are not eligible to the benefits of medical defense. That fact has on more than one occasion been a matter of embarrassment to temporarily delinquent members.

While we are at it, let us say a word in regard to subscription to the JOURNAL. Many complaints reach the office from new members that they are not receiving their JOURNAL. Perhaps there are those who have not complained but who still wonder why their subscriptions do not begin. Membership extends from January to January but subscription to the JOURNAL is from May to May. In other words, a new member joining in the early part of the year will normally not receive his JOURNAL until May, but he will continue to receive it until the next May, whether or not he renews his membership for next year. A member who was a member last year does not notice this, for the reason that he continues to get his

JOURNAL on his old subscription until his new subscription begins. A moment's reflection will make it clear that the situation could hardly be handled any other way. If subscription began January 1, and a member did not pay until after January 1, he could not get his January copy unless a surplus number had been printed, in anticipation of the delinquent payments. It would be necessary to print such a large surplus during each of the several months of the year that the expense would be noticeable, and, incidentally, very few of our members would really care for back numbers.

We have called attention to the matter in discussing the Dallas session of the American Medical Association, but the repetition won't hurt. Those of our members who expect to attend the aforesaid A. M. A. meeting in Dallas, should remember that only paid up members of the State Association may become Fellows of the American Medical Association, and that only Fellows can register and enjoy the benefits of the meeting. For the convenience of our members there will be a representative of the State Secretary on duty at the place of registration, who will be authorized to accept State dues from any county society secretary for any of his members, or from any member who will bring the *written authority* of his county society secretary to pay the same to the State Secretary direct.

Health Leadership a Serious Responsibility of the Medical Profession.—Our discussion last month of the publicity and enforcement campaign at the present time being conducted by the State Medical Association and the State Board of Medical Examiners, has brought some surprising results. On the whole, and in fact almost exclusively, the question in our title "Shall We Persist in Our Publicity and Enforcement Campaign?" has been answered in the affirmative. There have been qualifications, of course, notably from those who hold to the view that the medical profession should be the exclusive repositors of medical information but that the public should attend to the matter of distributing the information and enforcing all public health laws, including the Medical Practice Act, and pay all bills necessarily incident to such enterprises. Comments by these have been to the effect that we should keep quiet and speak only when we are spoken to, on the theory that doctors should be seen and not heard, and not very conspicuously in evidence except when called for.

The problem is entirely too large to permit of comprehensive discussion here, of course, but one or two comments will be worth while, we are sure. Dr. R. W. Knox of Houston, in his Presidential Address in 1920, under the title, "Public Health Education," made the following significant remarks, which are particularly appropriate in the light of the very pertinent comments of the *Saturday Evening Post*, which we will later on quote in full. After commenting on the scope of his subject, Dr. Knox said:

"The problem is not so much to convince you of the need of this work but how the knowledge that we already have in our possession may be made to function in such a manner that it may be of the greatest benefit to the greatest number of our people." * * * "No one will gainsay that our own laws governing the matter of public health, especially relating to the prevention of disease and the general welfare of the people, are in a great measure defective; yet we cannot with sound argument criticize our lawmakers, for they can only make those laws that the people are prepared to receive. In other words, no amount of health statutes are effective in a free country if they do not meet the approval and coöperation of the majority of the people. In the last analysis, the situation can only be controlled by the process of education, and this is necessarily slow. If we read the times aright, the people of this country are beginning to awaken to their interests in this respect. They have never been better prepared than now to receive the Gospel of Health." * * * "The leadership of this movement should be more actively taken by the medical profession, and to accomplish the best results every medical man, no matter what his specialty, should lend his influence and take a deeper interest in the prevention of disease, if we expect our country to reach that goal of happiness and prosperity to which she is so justly entitled."

With this emphatic contention before us, let us read the following editorial from the *Saturday Evening Post*, already referred to, of January 30, 1926:

GOOD NEWS SUPPRESSED.

"The science of medicine, whether because of or in spite of its abundant store of Greek and Latin jawbreakers, is, as far as laymen are concerned, the most tongue-tied of all the learned professions. Clergymen can deliver their messages in words of one syllable to high and low alike. Lawyers, by skill of word and clarity of expression, can make juries of the most limited education comprehend the essentials of highly intricate cases. The doctors alone are the bondslaves of a vocabulary drawn from the dead languages.

"Our physicians, surgeons and health officers are fairly boiling over with important information which they desire to communicate to the general public; but somehow they lack the simple, racy English in which to get it over or the sense of form and accent which would make it interesting and attractive. This inability to write plain understandable English, so readable in form and so accurate in statement that it is easy to make it accessible to large bodies of readers, is costing thousands upon thousands of American lives every year. Attention is called to this condition not as a matter of literary criticism, not as a reproach to the profession because it has produced so few Oliver Wendell Holmeses, S. Weir Mitchells and Sir William Oslers to enrich our gen-

eral literature, but because it has a message to Garcia which it is not delivering.

"The tragedy of medicine and surgery today is the appalling amount of suffering, affliction and mortality which is definitely avoidable. The economic toll exacted by needless death and disability runs into the billions. Some of the life-insurance companies are making powerful and enlightened efforts toward mass education in the essentials of maintaining the body in health and vigor. The physicians, however, despite the best of intentions, are contributing far less effectually than they might to the cause of preventive medicine. Their zeal for scientific advancement knows no bounds, but they forget that much of their newly acquired knowledge must remain barren until it has become common property and its significance has been grasped and realized. Even the commonplaces of modern medicine have not been universally taught. Coughs are still neglected; eyes, ears, noses, throats and teeth which are obviously defective are allowed to go for years without proper inspection; lumpy formations are ignored in the vain hope that they will disappear; adenoid growths are tolerated and millions upon millions of us, for lack of expert advice, continue habitual diets which are little better than slow poisons. Indigestion for the most part avoidable, has become our national disease.

"The brutalities which we unwittingly inflict upon our hearts, our kidneys, our lungs and our nervous systems only physicians fully realize. Periodical medical examinations are still the exception rather than the rule. The average man's living body is the bulk of his estate, and yet more often than not he allows it to go to rack and ruin until pain or disability which interferes with his work drives him to a doctor. As a result of all these conditions, fully twenty-five million of us are permanently sick; and so accustomed are we to being sick that we think ourselves well, and let it go at that until the day of reckoning arrives.

"Popular medical education cannot be achieved in a day, nor can it be accomplished by scattered outbursts of even the best-framed publicity in many days. The population of the country is too numerous and too widespread and the handicaps are too formidable to warrant any hope of the sort. Not the least of these handicaps is the attitude of the medical profession toward the lay press. For centuries physicians and surgeons have considered the lay press as common and unclean. There was a day when the aloofness of the profession was justifiable; but it was at a time when it was a matter of small moment, for the excellent reason that the doctor had very little to tell his patients which they or their grandmothers did not already know.

"Today all that has changed. The enlightened physician has a great body of news of the highest importance to communicate to nonmedical readers. He is fully alive to the educative powers of the newspaper and periodical press, but he does not know how to use the mighty engine he has so long despised. He is unable to frame his warnings with such skill that he can have them printed; or having had them published, he cannot lure people into reading, digesting and heeding them. His love of long, accurate Greek and Latin words is his besetting sin, and his punishment is in witnessing the affliction which might have been avoided if he had been able to deliver his message interestingly in simple vernacular English.

"When the medical profession becomes more fully awake to its responsibilities in this field, it is to be hoped that it will perceive the gravity and importance of its problem and attack it in force over a nation-wide front. Some national body, such as the American Medical Association, which has made such a good start along these lines, ought to take up the matter in a big way and work out a comprehensive program which would unify the efforts of the agencies already in the field, and by coöperating with state and local boards of health, hospital clinics, community centers and county medical societies cover the lay press of the whole country. Local organizations should cultivate their own home papers and see that they are supplied with simply and attractively written reports of all transactions in which the public is immediately concerned. They should spare no pains to make them as readable as the effusions of the sporting editor, who has perhaps reported their meetings in the past, and as much more accurate as their technical knowledge will permit. Eminent specialists should be induced to continue and multiply the excellent health talks which have been broadcast by radio.

"The old-time prejudice against medical men writing on medical matters for the lay press should give way to a more enlightened code, and young physicians should be encouraged to take pen in hand with a view to bringing about a closer understanding between doctors and patients. The good which would follow would outweight the evil.

"Any adequate nation-wide program of popular medical education such as is here contemplated would involve heavy outlays both of brains and of money; but its importance and its benefits, both social and economic, would be so stupendous that there is small reason to doubt that if the doctors would supply the brains the business world would find the money, and the newspaper publishers would furnish the white paper. There is no novelty in the basic idea. Many leaders of the medical profession have long had it in the back of their minds, but while it simmers there it does no good to suffering humanity. The time has come to convert good intentions into action."

Of course, reference is made primarily to health problems, aside and apart from those involved in the practice of medicine. If we contend that there is no health problem concerned in controlling the qualifications of practioners of medicine, or those who would undertake such a responsibility, no matter by what means, then the quotations we have made, which could be multiplied many times over, from other eminent authorities, would apply to our present situation in its entirety. We could meet the demands thus made upon us by simply joining the State Board of Health in putting out health information such as any health department, municipal, county or state, could well do, and, indeed, the which many of them are doing to a fairly satisfactory degree, without our material assistance, and tell the State Board of Medical Examiners to go to—the sheriff.

But we feel that those who are seeking to fix the burden of leadership in public health activities upon the shoulders of the medical profession, would readily conclude that of all the problems concerned in the matter of public health that should be dealt with intelligently and vigorously, that of suppressing quackery is the most important and the one least likely to receive attention.

Indeed, if the medical profession should be forced to maintain either line of activity, it would be better to relinquish the strictly public health problem and devote its time to the problem of quackery, which is an ever changing problem and one the solution of which may be attained only through the education and reëducation of the lay public.

We venture a prediction here. Eventually there will be a bureau in the State Health Department the purpose of which will be to see to it that all who would practice medicine are qualified. That bureau will embrace the State Board of Medical Examiners. There will be another bureau, the purpose of which will be to instruct the people on all public health problems. And it will be required that the State Health Officer coordinate the activities of these two. Then it will come to pass that the medical profession, as such, will be relieved of its present burden of educating the public on health subjects and of protecting the public against medical ignorance and quackery.

Famous Mineral Water Company Complaint.—Some time ago we published a news item showing judgment against the Famous Mineral Water Company of Mineral Wells. The proprietor of this concern thinks enough of the opinion of the medical profession to request that the situation be clarified. In view of his statement that the judgment does not represent the situation exactly, which, judging from the exhibits is likely true, we are pleased to print a letter, signed by Mr. Ed E. Dismuke, the president of the company, as follows:

"Referring to our conversation regarding the settlement of the case against the Famous Mineral Water Company, brought by the United States Government, claiming shortage in measurement, mislabeling and bad water, in the shipment of one case of water to a party in Oklahoma, this charge was made against us in the year 1918, and the case was not called for trial or, rather, was not settled, until February, 1924. We did not agree to plead guilty to the charge of bad water, but in order to have the settlement made with a minimum fine, we did plead guilty to the other charges, and the case, as before stated, was settled five years later.

"All of our wells are located on one acre of ground on the west side of West Mountain, and the way in which these wells were drilled, the steel casing being set in cement in the cap rock, which is over the mineral rock and is eighteen inches in thickness, makes it impossible for any surface water to get into the wells. Then, too, the wells are away from the city and are not subject to sewerage contamination. To verify our statement in this connection, we are enclosing copies of letters from J. C. Liles, driller of our wells, under date of January 29, 1918; Landon C. Moore, chemist, of Dallas, under date of June 5, 1919, and two letters from Dr. J. S. Abbott of Washington, D. C., under dates of April 6, 1921, and April 8, 1922.

"The report of this case which appeared in the TEXAS STATE JOURNAL OF MEDICINE has proven detrimental to us and we would greatly appreciate your correcting it, that is, insofar as the claim of bad and contaminated water is concerned."

The Business That Is Good for Society is the business that gives satisfaction. We are moved to these remarks by a paragraph in a letter recently received from one of our advertisers, the Hoffman-LaRoche Chemical Works. Our correspondence had to do with an entirely different line of thought, and the paragraph in question was quite incidental. Let us quote it:

"It is one thing to produce an intangible result; it is another thing to produce a result which may or may not be of benefit to some one; but it is quite different from either of these to be engaged in a business which produces things which are for the positive good of society. We are sincere in our business, and it is a nice thing to be able to sit back after the day and reflect for a few brief seconds, on the hundreds of people in pain who have been made better off by other products, and of some whose lives may have even been saved by another product; and it is reassuring to know the position in which we stand in the eyes of others."

Perhaps we unduly magnify our thought that every business and every profession should be as much for service as for profit. Perhaps we should think more of our own personal profit and less of the service we may render through the medium of the JOURNAL. Perhaps many things, but we are sincere in our determination to repeatedly emphasize the element of service in whatever affairs we come in contact with.

Last month we commented on a similar situation. The responsible head of a concern which had long been in the service of the medical profession, in a communication spoke of the satisfaction that had come of service rather than profit, and attributed the success of the concern to the element of service. Next month we may do the same thing, and the next month, our purpose being to lend a hand not only to "truth in advertising" but to truth in service.

Volume XXI Comes to an End with this number of the JOURNAL, and the JOURNAL has arrived at its twenty-first birthday. Twenty-one is a number to conjure with; it is one of the milestones in the lives of the American people. What a man we felt we were at twenty-one; and after all, how immature we were! But sophisticated age should not scorn our pride in our twenty-one years; they form a quite considerable fraction of a lifetime at that. And we trust that the majority that the JOURNAL has just attained may be but an infinitesimal part of a long life of usefulness both to the profession and the public whom they serve.

The twenty-one volumes contain a wealth of history. While most of this history is

medical, sidelights are given on the progress of the times, for medical history has changed the course of empires in ages gone. It has made continents habitable; it has spelled the difference between sickness and sorrow and health and happiness. The world powers today are the nations in whose midst the art and science of medicine flourishes. We trust that our people may learn from the past, and encourage and uphold their champions in the tireless and age-old conflict between the disciples of the great Æsculapius and Disease. Among other things the pages of the JOURNAL contain an account of a part of the long battle waged by the medical profession and a small group of allies from the more intelligent and thoughtful of the laity, for a comprehensive Medical Practice Act. The fact that Texas today has the best medical practice laws of any state in the Union is an enduring tribute to the fortitude of those who guided the destinies of the profession—yes, and of the great State of Texas as well—through those trying years. The wisdom of their endeavors is just beginning to be appreciated by the people of our State.

The twenty-one years covered by these volumes of the JOURNAL have witnessed the triumph of preventive medicine over malaria, yellow-fever, smallpox, typhoid fever, cholera and bubonic plague, so that the very occurrence of an epidemic of one of these nation-destroying plagues is a reproach to any community. The discoveries upon which much of this work was based belong in some instances to other periods, but they found their more complete application in the twentieth century. Epochal discoveries have been made in every department of the healing art, but surgery in particular has come into her own. Much of this progress has been recorded in the pages of our JOURNAL. It makes interesting reading now; it will be more interesting as the years go by.

The twenty-one volumes of the JOURNAL record the biographies of many of those who have wrought to make the world a better place in which to live. The feeble tributes of their fellows contained in their obituaries give but a faint idea oftentimes of the real worth of the men, themselves. Their lives have been an inspiration to those upon whom their mantles have fallen; their memories rest like a benediction upon those who strive onward and upward. When we consider the work that they have done and the poor tools with which they often accomplished their herculean achievements, we are constrained to say with the prophet of old, "There were giants in those days."

Whatever there may be of merit in the present volume is very largely to be accredited to our contributors. If our readers are not satisfied with their JOURNAL, it is their duty and privilege to make it better. More thought could be given to some of the papers presented, and most all of them could be improved by more careful revision by their authors. The JOURNAL is the property largely of its readers; its destiny is in the hands, therefore, of its contributors.

Volume XXI is the largest volume we have published by quite a considerable margin. The reading pages may be divided as follows: Editorials, 135; Original Articles, 379; Miscellaneous, 133; News, 12; Society News, 54; Book Notes, 23; Deaths, 22, and Index, 14. The pages of the previous volume were in the same manner divided as follows: Editorials, 98; Original Articles, 383, Miscellaneous, 115; News, 12; Society News, 56; Book Notes, 22; Deaths, 16, and Index, 14.

Very much the same plan has been followed in this volume as in its immediate predecessor, in the arrangement of the original articles. The principal specialties of medicine have been represented in every number, in order that each one might prove of interest, as far as possible, to all of our readers. Before closing this final editorial of the volume, we again crave the indulgence of our long-suffering readers, while we call attention to the Index in this number. It is the General Index of the volume and should be valuable especially to those who keep files of the JOURNAL. The compilation of this index represents more time and expense than one would think for; we trust that it may be found profitable.

Bound volumes may be obtained from the JOURNAL office in exchange for the unbound files, together with the actual cost of binding. Each year a certain number are bound for the convenience of our readers, and an increasingly large number each year, owing to the demand for these bound volumes. Back numbers are gladly bound on the same terms, and missing numbers are supplied by this office, insofar as our files will permit. The volumes bound for us are uniform in red quarter morocco and gilt, and are quite attractive in appearance. Those desiring bound volumes should communicate with the JOURNAL office at once, in order that the required number may be ordered.

We again desire to express to our readers our appreciation of their cordial assistance in the preparation of this volume. To our readers and contributors we freely give credit for whatever of excellence may be found in Volume XXI.

ORIGINAL ARTICLES

THE HEALTH RELATIONSHIP OF THE WHITE AND COLORED RACES.*

BY

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There is an ethnic group in our midst, the relation of which to our social organization is constantly becoming more and more intimate and complicated. I refer to the negro, who racially and biologically represents a class of human beings with instincts and physiological constitutions in many respects diametrically opposed to those of the Aryan branch of the human family. Though we may deplore the situation, we cannot lose sight of the fact that the negro is with us not because of his freedom of choice, but because of the avarice and cupidity of the white man. He has been transplanted by force to a climate and environment to which he is not fundamentally adapted. Both races must make the best of a bad bargain.

Hundreds of years before the Christian era the knowledge of the life of the negro in his African habitat was vague and surrounded by mystery and superstition. Even up to the later Roman times the vast continent of Africa was almost entirely unknown, except through incursions of the barbarians into the half civilized sections of the Roman Empire. These black people were scarcely regarded as human beings and were looked upon as animals of the lower grade that existed and multiplied in very much the same way. There is, therefore, an historic background for the lack of sympathy that has throughout the ages been accorded the trials and tribulations of the black man. On account of his inferior mental development he has necessarily laid himself open to exploitation by every branch of the Caucasian race with which he has come in contact.

A fact that has been noted repeatedly not only by modern writers but by ancient historians as well, is that the negro is incapable of creative effort, that his ability to adapt himself to his environment is more or less artificial and, at the very best, but an imitation of his white masters. Gibbon's disquisition on the subject reflects the attitude of mankind during the period of which he so eloquently wrote and combines a faint note of censure for the practice of his own time. He says toward the end of his second volume of "The Decline and Fall of the Roman Empire": "The inaction of the negroes does not seem to be either the effect of their virtue or of their pusillanimity; they indulge like the rest of mankind their passions and appetites * * * But their rude ignorance has never invented any effectual weapons of defense, or of destruction; they appear incapable of forming any extensive plans of government or conquest and the obvious inferiority of their mental faculties has been discovered and abused by the nations of the temperate zone. Sixty thousand blacks are annually embarked from Guinea, never to return to their native country, but they are embarked in chains and this constant emigration which in the space of two centuries might have furnished armies to overrun the globe, accuses the guilt of Europe and the weakness of Africa."

Much water has flowed under the bridge since the Roman occupation of northern Africa, and even since the white race in real or affected humanity abolished slavery of the chain and shackle to replace it with economic and industrial relations which for the masses represent but a version of the same thing under an assumed name. Yet the negro remains very much the same.

Our conception of humanity and self interest demands that we take upon ourselves the burden of the negro's health, regardless of how we look upon him otherwise. If for no other reason than that he is virtually indispensable to the commercial life of the Southern States, it behooves us to attend more closely than we do to the negro's health status. However, this is not the only incentive, there are others of even greater, or at least equal, importance. The principal one is self-protection.

Public opinion and legal restrictions offer a fair protection against the social evil of miscegenation which is the great curse of the Latin American countries; but they assist but imperfectly in maintaining the freedom from acute and often disastrous contagious diseases for which the negro is preeminently suitable as a host. In my opinion, the colored section of the population is a reservoir or endemic repository for many of those ailments which the ingenuity, the greater intelligence and the radically different methods of living peculiar to the white race have enabled them to largely suppress or overcome. I think that in many respects the negro, from the standpoint of public health, must be regarded as a liability and that the whites have every reason to procure protection for themselves by whatever means they deem applicable. The situation, therefore, resolves itself largely into a conservation of the dominant and superior race, with, however, an element of justice and humanity from

*Read before the Section on State Medicine and Public Hygiene, State Medical Association of Texas, Austin, May 5, 1925.

which the negro cannot fail to derive immense advantage.

Our experience teaches us, and our statistics sustain our observations, that the negro is to be regarded as an exotic, indifferently successful in maintaining an existence in a soil and in an environment foreign to his nature. The colored race belongs to the tropical climate. Nature even has assured him a protection from the sun's rays which has been only imperfectly developed in the white man. Originally a native of Africa, his progeny has spread or been carried to other regions of the earth only with reluctance, and only in those latitudes commonly called the torrid or subtropical zones has he been able to successfully cope with his environment. His is primarily a subordinate position and it is conceded that the rank and file of the colored race, whether civilized or savage, possess the psychology of children, and no amount of contact with the white race seems to obliterate or alter their childish characteristics. For this reason the treatment which the white people must accord the negro will necessarily be of the kind applicable to children. We believe this is the only method of teaching the negro health for his and our own protection.

I suppose that the negro health problem is not one of any magnitude in your State, but it is a real one in Louisiana and the adjacent State of Mississippi. In view of the racial question as a whole, it is a problem of all the Southern States. There are certain facts which we cannot avoid facing squarely. One of these is impossibility of assimilation; another is the conservation of the negro because he happens to be a human being, and because he is useful. The third factor is the one already mentioned, that of self-protection.

The dilution of white blood with that of an inferior race is fundamentally untenable. Experience has shown that the product has invariably been of poor quality. According to the Mendelian law 50 per cent of the parental characteristics are inheritable. A mulatto apparently inherits 100 per cent of the obnoxious qualities of both races. He is a hybrid but little better than his black sponsor and decidedly inferior to his white progenitor. No dominant race has survived admixture with one of meaner capacity. Nations have declined to extinction because they disregarded the laws of heredity and did not prevent the miscegenation with barbarian hordes. The power and glory of Greece and Rome disappeared gradually as the result of alien blood, and the havoc which the negro and Indian have produced among the descendants of the old Spanish invaders of the South American countries is a glaring example of the ease with which a superior race can be degraded.

The conservation of the negro for the sake of humanity appeals to the sentiment. As much humanity as the negro requires is expended upon him in the South and the result is more satisfactory to the mutual status of both races than it is in the North. We cannot disguise the fact that the negro must help himself. He must work if he will eat. He lives among the whites and must perforce adapt himself as best he can. The whites can and do help. They endeavor to teach him, and the law allows him freedom to choose his line of action. The Louisiana State Board of Health is always willing to give assistance to negro schools when requests are made for information, and never refuses to contribute to the negro's welfare wherever it is required.

A recent survey of negro homes made in Louisiana showed that while not up to the standard by any means they were perhaps no worse in many respects than many of the habitations of the low grade whites. From this survey which represented living conditions among some 75,000 colored inhabitants, it is clear that the main defects are of a sanitary nature, which can be remedied in many instances. At the same time our statistics show a high mortality rate from those diseases which thrive in crowded and unsanitary dwellings. They also indicate the preponderance of the colored over the white cases. Thus, for the four years, 1920-23, we found the following rates per 100,000 for tuberculosis and pneumonia:

	1920		1921		1922		1923	
	W.	C.	W.	C.	W.	C.	W.	C.
Tuberculosis:....	72.1	222.9	60.7	197.4	62.2	192.4	58.8	181.7
Pneumonia (all types)..	95.7	134.2	64.9	92.4	72.2	112.3	76.3	129.9

The following mortality rates per 1000 persons of the white and colored races for Louisiana during 1920-23, are very instructive:

	1920		1921		1922		1923	
W.	9.7		9.4		9.3		9.6	
		+59.8%		+47.8%		+53.7%		+57.3%
C.	15.5		13.9		14.3		15.1	

In every instance the colored exceeds the white rate by a large percentage.

During the period of slavery, *i. e.* for the period 1800-1860, the negro population increased 343 per cent, while in the succeeding sixty years 1860-1920 the increase was less than half or 136 per cent. These were the years of "freedom" which brought the dangers and responsibilities which the negro had never before known, and for which he was

wholly unprepared. Nothing illustrates more clearly the lack of adaptability of the negro character to white man's ways than the results of this sudden transition from slavery to freedom. Perhaps many will say that the condition of servitude prevented the negro's development, but this argument is futile. There is no doubt but that the negro loses in the race because of his inherent incapacity and not because opportunity is wanting. He has also acquired the white man's diseases, to which he was unaccustomed, and he swarmed to the cities to his eternal detriment.

Extensive investigation has shown that the negroes are adversely influenced by city living conditions, both in the North and in the South; and in both sections the deaths have been materially greater than the births. Thus, cities of the North show a proportion of births to deaths of 100 to 116, while in Southern cities the ratio is still more significant, being 100 to 127. In the rural districts of the North the ratio is 100 births to 134 deaths; but in the Southern rural districts there are 100 births to every 66 deaths, according to Willcox. It is clear that life in the city is detrimental to the negro and will eventually cause his disappearance. On the other hand, figures show that he thrives in the southern country districts as in no other part of the country.

There is also a diminution in the birth rate among negro women. Willcox states that at every census from 1850 to 1910 the number of children born per 1000 negro women exceeded the number born to 1000 white women anywhere from 35 to 174 per 1000 women. Since 1880, a decline commenced which resulted in the number of white births per 1000 women exceeding the colored births for the same number, by 42. This represents a very marked diminution in the fecundity of a very prolific race, for which the venereal infections are doubtless immediately responsible.

Willcox seems to take the attitude that the negro race in this country is slowly but surely disappearing. He claims that during its first sixty-year period, *i. e.*, during the days of slavery, the negroes increased two-thirds as fast as the whites; but that after slavery had been abolished, the increase among the negroes was proportionately less than half that of the whites. His conclusion is that "since 1880 the darker race has been relatively and rapidly losing ground." It is claimed by another and, I think, rather hypercritical author, that by the end of a century (presumably, the present one) the negro race will be but an insignificant fraction of the total population of the United States.

Some vague intuition of impending disaster may be responsible for the solidarity, or, perhaps, the species of race consciousness, which is now being developed, and there is a tendency more and more definitely expressed by the negroes themselves, to live like white people.

It is therefore evident that there is such a thing as a negro health problem. The negroes themselves consider that it is rather an important one, since they have enlisted the assistance of the U. S. Public Health Service and the Health Boards in the presentation of their "Health Week." We have given our contribution in the shape of a pamphlet to the cause gladly and trust that the instruction which it contains will bear fruit; however, I am not unduly optimistic about the results which are likely to follow the negro health agitation.

The third factor which we have postulated for the negro health problem is the one of the prosecution of this work among the race for the common sense reason of self-protection. Left to himself, the average negro is perfectly indifferent to his surroundings. He will spread his contagion with the same fatalistic spirit in which he accepts his malady; and because he is essentially a fatalist, he continues to maintain himself in surroundings which tend to foster disease, without making any attempt to improve them. This is not necessarily on account of his habitual improvidence, but because there is that quality in his half-civilized nature which resigns him to misfortune without an effort.

This resignation to decrees of Kismet is an ancestral trait which partakes at once of both the dignity of a philosopher and the helplessness of a stricken animal. However laudable this surrender to the strokes of fate may be in some respects, it constitutes a real danger to the more energetic and imaginative, though less stoically inclined, among the white population. It contributes difficulties to our "Vital Statistics" and epidemiological departments because of the number of colored cases which escape the notice of the health officer. A scarlet fever, smallpox, diphtheria, or typhoid case may occur among the negroes, and before quarantine or other regulations can be imposed, the disease may spread by contact far and wide. I have no doubt that smallpox is kept alive in many of the states in much the same way that plague is endemic among the rodents of California. We have just had an example of the danger of a contagious disease among a low grade population in the recent outbreak of plague in Los Angeles.

I think that I have said enough to indicate to you that the negro health problem is a

real one, but I believe that it can only be handled by the negro himself with the assistance, direct and indirect, of the federal, state and local health organizations. Ultimately, the negro must solve his own problems. He can do much to check racial decline by applying the knowledge which the white race has gained by bitter experience. His fate is in his own hands, but we can stand ready at all times with encouragement, advice and assistance.

DEVELOPMENT OF PUBLIC INTEREST IN MALARIA CONTROL.*

BY

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Sanitarians are of the opinion that it is not an easy task to arouse interest in rural sanitation or county wide health work. They agree that one of the best methods of procedure is to establish a full time county health unit. The success of the director of such a health unit depends to a large extent on his ability to develop and maintain active public interest in applied sanitation, and to get heads of families to realize that the health officer cannot do all the work, but that most of it should and must be done by the property owner. Some sanitarians are more successful than others in making the public willing and ready to do their part.

There is too much of a tendency on the part of health workers to try to do all the work themselves and an insufficient properly directed effort toward making "deputy volunteer health officers" out of leading citizens. And then we wonder why there is not a wider active interest in applied sanitation!

In undertaking county-wide malaria control work the first step should be to induce a sufficient number of leading citizens to see that the program is worth undertaking, and to get them to help to convert others to this idea. This preliminary campaign should precede field operations, and we should measure its effect and the public attitude before starting field operations. It is an essential part of the program that is generally insufficiently developed. When interest has been properly and sufficiently aroused it is possible for the county health officer to so interest a few (carefully selected) citizens in malaria and mosquito control that they will do some drainage work on their own property (if not too expensive), and so that they will also talk the matter over with their friends and induce the latter to do some drainage or antimosquito work. Yet, if you ask some health workers to what extent they are working along this line and to how many people they have thoroughly sold the idea, you will frequently be told that it is not practical to do things that way in that locality. Yet, other health workers who are endowed with more persistence can and are doing it.

If out of 5,000 adult persons in a county the idea of actively helping the health officer in malaria control in the above manner has been really sold to but two or three persons, what results can we expect? Any successful salesman will tell you that the best way to sell is not to sell at all, but to get people to want to buy. It may take three, six, or more interviews to get a prominent person to become an active assistant to you, and the sanitarian who expects active coöperation as the result of one visit understands neither sanitation nor human nature.

To condense our problem into a few words: (1) Induce the people of influence in the community (one by one) to see that the program is worth undertaking; (2) then get a few of them who own property where drainage is essential, to do their own drainage work (small and easy projects only at first) and stay with them while it is being done. When such a person has thus assisted you, get him to help you to get one or more of his friends to do some similar small drainage project. It is the starting of the work that is the stumbling block, and later projects are easier to get started, after a good start has been made.

In one county where they have a part time county health officer who is not active in getting field work done, the sanitary inspector directing the malaria field work spent considerable time with the school district parent-teachers associations and sold them a desire for active malaria control. The county agricultural agent coöperated with him and at the county agricultural fair prizes were awarded for greatest school district improvement in agriculture, in housing conditions and in malaria control. During the first season one of the smaller communities won the prize, and this year twice as many school districts (21) are competing for first, second and third prizes. This means that 21 out of 30 county school districts are doing some malaria control work voluntarily.

There is many a full time county health officer who would be very much pleased to get such support as this from the rural public, and to see the different sections of his county competing to determine which can give him the most support. The incentive of

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the prizes is well worth consideration. Last year the prize was a pennant which is now flying on the flag pole at the district school of the winning district. The competitive idea is helping toward better farming, keeping the rural public in better health, and, best of all, it is a means of not only keeping up interest in rural sanitation but in increasing that interest as time goes on.

It is common for a health campaign to start with a flourish and die out or die down in its second year, but here is a means of having a gain of a hundred per cent of public interest in the second season of the work, without any appreciable investment of funds. It is the best means the writer has seen tried out to develop interest in sanitation without considerable expenditure. We all know that the big sanitary problem of today is to get the public to do their share of essential applied sanitation, and surely having them do such work voluntarily and having the leaders of rural communities visiting property owners and obtaining coöperation from them is an effective means of developing public interest in malaria control.

If this can be accomplished by a sanitary inspector is there any reason why it cannot be done by a county health officer? In this case the sanitary inspector was a man of vision who saw that he could not be in twenty-one parts of a large county at the same time, and as a result of his efforts he now has twenty-one volunteer deputy assistants competing to see who can get the most work done this summer.

Surely this is a superior plan to deciding in advance that the people of the county are not yet ready for sanitation, which is the conclusion that is sometimes reached by health workers who fail to sell sanitation and malaria control because they give up before the health sales campaign is really well under way. If a health officer does not thoroughly believe in the possibilities of malaria control he should not attempt to sell the idea of a county campaign to the people of the county, as they as well as he will understand he is trying to sell something that will not be a success.

Report of the Therapeutic Research Committee of the Council on Pharmacy and Chemistry.—During the past year the Committee has concentrated its work on the support of investigations carried out in schools and laboratories of recognized standing by supporting investigations for which small grants were needed to purchase material and apparatus. Fourteen eligible problems of high quality were submitted.

The committee appropriated two thousand three hundred and seventy-five dollars. Six papers were published during the year and a number are almost ready for publication.—*Jour. A. M. A.*, March 20, 1926.

THE USE OF CROSS CYLINDERS IN REFRACTION.*

BY

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LONGVIEW, TEXAS.

Our problem in refraction is to select the method which gives us the most reliable results and the patient the greatest comfort and improvement in vision in the limited amount of time which we can give to one case. The element of time consumed in doing a careful and accurate refraction probably accounts for the fact that good refraction is by no means general, even among those who are considered leaders in our profession. The advantages accruing from the use of the cross cylinder will aid materially in solving this problem in that its use simplifies the work of refraction and insures accuracy with the least expenditure of time and energy.

A form of cross cylinder was first described by Stokes[1] in 1849, but we are indebted to Dr. Edward Jackson for the first description of a practical use of it. In 1887[2] he advocated its use as a supplementary lens to the trial case for the determination of the amount of astigmatism, and in 1907[3] he suggested its application for the determination of the axis.

The cross cylinder lens has in one axis the action of a convex cylinder and in the axis perpendicular to the former the action of a concave cylinder of equal refractive power. For convenience in grinding it is made as an ordinary compound lens, having a minus sphere on one side and on the other a convex cylinder which is double the strength of the sphere. Thus a minus 0.25 S. combined with a plus 0.50 cylinder makes a 0.25 D. cross cylinder, *i. e.*, one having a refractive power of 0.25 D. in each of its principal meridians, one being plus and the other minus. The lens is mounted in a rim with a handle placed midway between the axes so that when the handle is rotated between the thumb and index finger there is an instantaneous shifting of the axes through 90 degrees. The lens should be marked with dots of different colors to indicate its two axes.

The chief advantage in the use of the cross cylinder is based on the fact that all changes of sensory impressions are perceptible in proportion to the time consumed in making that change. We may travel on a railway train from a point at sea-level taking several

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*Read before the Section on Ophthalmology, Otology, Rhinology and Laryngology, State Medical Association of Texas, Austin, May 5, 1925.

1. Stokes: Report of the British Association for the Advancement of Sciences, 1849.
2. Jackson, E.: Transactions of American Ophthalmological Society, vol. iv, p. 595.
3. Jackson, E.: Ophthalmic Record, vol. xvi, p. 378.

hours or days to reach the Rocky Mountains without noticing the change in sensation of altitude, but if we ascend to the same height in a balloon, requiring only a few seconds, the change is very marked. The same is true in the subjective tests of refraction; the perception of a change of lens and the definiteness of the patient's answer depends on the suddenness of that change. In testing with the cross cylinder the patient is given an instantaneous choice between two combinations.

The method of using the cross cylinder is almost as simple as that of using any other lens from the trial case. After placing in the trial frame the approximate correction as found with the retinoscope, or any other method, the cross cylinder is held in front of the eye with first one axis and then the other coinciding with the axis of the cylinder in the trial frame. If we have hyperopic astigmatism with an axis at 180 degrees and the better vision is obtained with the two plus axes coinciding, the strength of the cylinder should be increased, or if the minus cylinder is preferred in this axis, the cylinder should be decreased. After the change is made the test is repeated until the patient does not notice a difference in the two positions of the cross cylinder, which indicates that the cylinder in trial frame is the correct one. With any of the cross cylinder tests the vision in most cases is not so good with the cross cylinder before the eye, so it should be explained to the patient that you are not at this time trying to improve his vision, but only asking for a preference between two positions.

If there is no cylinder in the approximate correction, or if a preliminary test is being made, the presence of astigmatism can be quickly determined with the cross cylinder. After the best vision is obtained with spheres, the cross cylinder is held in front of the trial frame in any convenient position, and handle rotated. If there is no preference as between the two positions, the handle of the cross cylinder is shifted 45 degrees and test is again made, only the two tests are necessary to detect astigmatism in any axis. If one position gives better vision, place either a plus or minus cylinder in the trial frame in the axis corresponding to that of the same sign in the cross cylinder. Test again with spheres and proceed as described in making a test for the strength of cylinder.

The cross cylinder test for axis is based on the principle that two cylinders superimposed with their axes at an acute angle have the cylindrical effect of a third cylinder whose axis is placed between the axes of the component cylinders. In making this test the cross cylinder is held so that its handle is perpendicular or will coincide with the axis of the cylinder in the trial frame, making each axis of the cross cylinder 45 degrees from the axis of the trial cylinder. In this position, rotating the handle of the cross cylinder causes each of its axes to turn first 45 degrees one way from the axis of the lens in the trial frame, and then 45 degrees the other way. When the patient states which is the preferred position, the axis of the trial cylinder is moved a few degrees toward the axis of the cross cylinder of like sign. If there is a plus cylinder in the trial frame with its axis at 180 degrees, the plus axis of the cross cylinder would be at 135 degrees and the minus axis 45 degrees, and vice versa, when the cross cylinder is rotated. If the first position (plus axis 135 degrees) is preferred, the axis of the plus cylinder in the trial frame is moved a short distance in that direction, and the test is again made, always keeping the axes of the cross cylinder 45 degrees from that in trial frame. When a point is reached where the vision is the same with either position of the cross cylinder, we have found the correct axis for the cylinder.

One would be guided as to the strength of the cross cylinder to use in any case by the visual acuity of the patient, just as in using simple cylinders. The higher strength ones, as the 0.75 D. and 1.00 D., are of value in testing aphakic or relatively amblyopic eyes. The 0.25 D. and 0.50 D. are used in most cases with the final estimation to be made with the 0.12 D.

ABSTRACT OF DISCUSSION.

Dr. E. L. Goar, Houston: I became interested in the crossed cylinder while taking a postgraduate course at Denver. You have heard the explanation, which is difficult to understand; but it is easy to use. Once its use is learned, I do not believe anybody will do without it; it is so convenient and so accurate. You either get an increased sphere and decreased cylinder, or vice versa. To my mind it is most helpful in the determination of the axis. Those who use the ordinary cylinders and find the axis by rotating the cylinder will find that 15 degrees rotation is overlooked by most people when using a half diopter cylinder. It is essential that the cross cylinder be mounted properly—that is, so that the handle is midway between the plus and minus axis marks; then, when the handle is rotated between the thumb and finger, it quickly changes the axis of the plus or minus cylinder ninety degrees. Put the cylinder in the trial frame, of the strength and axis as obtained by retinoscopy or manifest refraction. Have the patient watch the lowest line he can see fairly well with the cross cylinder held in front of that in the trial frame, with the axis of the cross cylinder of the same sign at 45 degrees from it. Reverse the cross cylinder by turning the handle between the thumb and finger and have the patient tell which way the letters look clearer. Turn the cylinder in the trial frame in the direction the patient indicates is best and repeat until the patient

says there is no difference. This is the axis of the correcting cylinder. The 0.25 D. cylinder is sufficient in cases with good visual acuity. In others the 0.50 D. or 1.00 D. are better. The latter is especially good to locate the axis quickly in aphakic eyes. The best article I know of on the use of cross cylinders in refraction is by Dr. W. H. Crisp in the *American Journal of Ophthalmology* of March, 1923.

Dr. F. J. Slataper, Houston: I wish to thank Dr. Hurst for calling our attention to the use of cross cylinders in refraction. I hope that some of you will feel as grateful to him as I do to Dr. Merrill of Provo, Utah, who was the first to show me the method. Why the cross cylinders are not more generally used is hard to understand. I have never known an ophthalmologist who became familiar with their use to discard the method. I have found it the most accurate method of determining the axis of an astigmatism. It is often my best method of measuring the amount of astigmatism.

I carry the principle of quick contrast a step further, by using a triangular arrangement of lenses. A minus .25 cylinder, a plus .25 sphere and a plano forms one set. A plus .25 cylinder, a minus .25 sphere and a plano forms the other set. The axes of the minus and plus cylinders are plainly marked by a red and a white enamel line, respectively. If the patient selects the minus cylinder of Jackson's cross cylinders, I pick up the triangle with the minus cylinder and allow him to choose the better of the three lenses. The triangular arrangement gives him a quick contrast and saves my time in picking up one instead of three lenses from the trial case.

Dr. Ray Daily, Houston: The cross cylinder is a very valuable adjunct in a subjective refraction test; however, in my opinion, any method that depends for its accuracy on the information given by the patient is fundamentally deficient. Half of the patients lack the acuteness of mental perception to recognize a distinction in the clearness of vision due to a quarter of a diopter or a change in the axis of five degrees. This lack of confidence in their own judgment makes them suspicious of the final prescription and often dissatisfied with the results. An objective method, as retinoscopy, once mastered, gives you a confidence in your judgment, which you unconsciously transmit to your patient. I like to do a retinoscopy as carefully and as well as I know how, and then check it with the trial case as quickly and with as few questions to the patient as possible. If my results do not agree, I repeat the retinoscopy until they do.

Dr. Hurst (closing): Many patients cannot distinguish between slight changes; as Dr. Jackson says, you have to almost knock them down to make them recognize the difference, so a half or a three-fourths diopter cross-cylinder may have to be used with some, while a one-fourth will do for most patients.

Radon (Radium Emanation).—It has been reported that the intravenous injection of long lived radioactive elements or the internal administration of radium, mesothorium or radiothorium is highly dangerous on account of the delayed harmful effects. This is due to the deposit of insoluble particles of these elements in the storage organs, namely the bones, spleen and liver. These possible dangers apply to the administration of solutions of radium salts, but not to the ingestion of water charged with radium emanation, (radon) since this is eliminated rapidly, the elimination being practically complete in the healthy individual in twenty minutes.—*Jour. A. M. A.*, March 20, 1926.

BRONCHO-PULMONARY SPIROCHETOSIS.*

REPORT OF THREE CASES.

BY

HAROLD FREED, M. D.,

SAN ANTONIO, TEXAS.

A certain definite train of symptoms, which is characteristic of a given disease, does not always denote the presence of that particular pathological condition. An illustration of this fact is seen in those cases of chronic cough with expectoration of blood-streaked sputum, loss of weight, and vague pains in the chest, which the clinician is very apt to stamp as pulmonary tuberclosis. In the great majority of cases this diagnosis will be correct; however, there are instances, and they are far more numerous than we suspect, where these symptoms do not indicate phthisis. Since the methods of treatment in pulmonary conditions having a common symptomatology but different etiological factors, vary greatly, our incorrect diagnoses will not only result in considerable economic loss to the patient, but will also prevent him from obtaining the benefits of proper therapeutic procedure.

A case in point is broncho-pulmonary spirochetosis of Castellani, a disease which resembles pulmonary tuberculosis very closely in many particulars, but which instead of being caused by Koch's bacillus, is due to a spirochete first described by Castellani, which therapeutically is attacked from an entirely different angle and with supposedly far greater success.

Castellani, in 1906, reported two cases in natives of Ceylon, who had recurrent hemoptysis with expectorations of foul sputum, negative for tubercle bacilli but rich in actively motile spirochetes—all these in the absence of any parenchymal lung pathology. Castellani distinguishes three types of the disease, the acute, intermediate, and chronic. The acute type begins usually with headache, malaise, pain in the chest, and cough simulating an acute bronchitis. The material expectorated is rather scanty and purulent, and the breath may have a peculiar fetid odor. Streaks of blood appear in the sputum within a few days, and numerous spirochetes may be seen in the dried specimen by dark field illumination, which will show them in an actively motile state. In the milder cases all symptoms subside in a few weeks. The chronic type may follow the acute, or its onset may be insidious, the

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symptoms becoming more pronounced as the disease advances. The intermediate type runs its course with exacerbations for several months and finally either disappears or lapses into the chronic state.

The chronic type of the disease is the most important one from our point of view, as it is the one which most frequently comes under the clinician's observation, and requires active therapeutic interference. Its symptoms are those of a severe chronic bronchitis, except that the sputum is very frequently blood-streaked, and small frank hemoptyses, averaging from a dram to three or four ounces in quantity, occur at intervals. A low grade fever, irregular in its relation to the time of day, with intervening periods of normal temperature, is quite constant. The blood is negative, except for a slight secondary anemia. Physical signs of chest pathology are usually absent, but occasionally a small patch of parenchymatous infiltration is present, as demonstrated by a very slight dullness and the presence of a few small, moist rales. *X*-ray findings are usually negative; however, occasionally a slight cloudiness may be present in the area over which the physical signs are elicited. A slight degree of emaciation with an accompanying asthenia may be present.

The causative factor is the Spirocheta Bronchialis, which of all the body fluids is found only in the sputum of the patient. Castellani in his original work, divides the organism into four groups according to the length and number of undulations of the individual organisms. Its most marked characteristic is an active motility which, however, lasts only for about one hour after removal from the body. It stains readily with ordinary aniline dyes, and the usual spirochetal stains. It is polymorphous and varies in length from three to thirty microns, and in breadth from two-tenths to six-tenths micron. Its ends may be either blunt or sharp, and the number of undulations may vary from two to eight, and they are never so small, regular or numerous as those of the spirocheta pallida. Some investigators report that fusiform bacilli similar to those accompanying the spirochetes of Vincent's angina were found in association with the Spirocheta Bronchialis, and that the organisms of Vincent's angina and of Castellani's bronchitis are very closely related.

Nothing certain is yet known regarding the mode of transmission of this disease. Fantham claims that infection is carried from diseased to healthy individuals by the coccoid bodies of the spirochetes sprayed into the air by coughing, or has its origin in dried sputum. Attempts to cultivate the bacilli were not met with success. However, Chalmers and O'Farrel succeeded in infecting a monkey by intratracheal insufflation with sputum from one of their spirochetosis cases.

Since the original publication of Castellani, establishing this disease as a clinical entity, numerous cases of broncho-pulmonary spirochetosis have been reported from practically every part of the civilized world. In India and Indo-China the disease is endemic, and, according to Mendelson, affects about 5 per cent of the population. Numerous cases were reported in France and Belgium in the years following the World War, which were probably traceable to the presence of colonial troops from the Orient (granting the contention of most investigators that the condition is a tropical one). It is, therefore, surprising that comparatively few cases were reported in this country.

CASE REPORTS.

Case No. 1—J. H. S., male, white, 25 years old, is married and has two children, the youngest of whom is one year old. All members of the family were in good health. The family and past history were negative. He was in the United States Navy during 1918-19. About three years ago he began to cough; he expectorated blood-streaked sputum and lost considerable weight. He was examined and diagnosed as inactive pulmonary tuberculosis and continued his work as postal clerk quite satisfactorily until three weeks ago, at which time he appeared for reëxamination. He was a young, tall, emaciated and anemic individual, complaining of bloody expectorations especially in the mornings, and of cough and fever. A record of temperature, kept by the patient, showed a daily elevation for the past three weeks, reaching 101° F. in the evenings. The general physical examination of the chest was essentially negative for any active tuberculous pathology; however, harsh broncho-vesicular breathing was heard in both apices, with a few sibilant rales scattered through both lungs.

Urinalysis, feces examination, complete blood count, blood Wassermann and chest radiograms were all negative. The sputum, hemorrhagic in character and very fetid in odor, became almost nauseating upon standing. A thorough search for tubercle bacilli, using the sodium hydroxide concentration method, was fruitless. A smear stained by the carbolgentian violet method showed very numerous spirochetes (about 20 to 30 to the oil immersion field), the organisms being of various lengths, thicknesses and forms. The specimens of sputum were obtained after a thorough gargling and rinsing of the mouth with a 1:5000 solution of potassium permanganate. A diagnosis of broncho-pulmonary spirochetosis was made and suitable treatment instituted, the man continuing at his work. The patient has received four neosalvarsan injections intravenously in the last three weeks and iodides (10 to 15 minims of a saturated solution of potassium iodide by mouth three times a day, well diluted in water). His temperature dropped to normal during the first few days of treatment, and remained normal, except for slight elevations on two occasions. Subjectively, the patient is greatly improved, his feeling of lassitude and weakness in the evenings has almost disappeared, and he has gained six pounds in weight. The sputum, however, is still

hemorrhagic in character but greatly lessened in amount, and is still harboring spirochetes, though these are not as numerous as before the institution of treatment.

Case No. 2—O. W. C., white, male, 25 years old, has a wife and one child, both of whom are in good health. His past history has no bearing on his present condition. This man served in the United States Army from 1918 to 1920 and participated in the St. Mihiel offensive, where he received a gunshot wound in the knee. He was in fairly good health until last year when he began to cough slightly and raised blood-streaked sputum, especially in the morning. Occasionally he had a small hemorrhage, varying in quantity from a teaspoonful to two tablespoonfuls. He had lost somewhat in weight.

This man was examined at the Dallas Suboffice of the Bureau by Doctor Maxwell, who called me into consultation on account of the peculiar features presented by this case. Examination revealed a young, slightly anemic individual, complaining of bloody expectoration, vague chest pains, weakness, and fatigue on moderate exertion. The physical examination showed nothing abnormal except a well-healed gunshot wound scar on the left knee. No chest signs were noted after most careful examination. The chest radiogram presented no evidence of any parenchymatous pulmonary pathology. Laboratory findings were as follows: Urine and feces, negative; complete blood count, normal; blood Wassermann, negative; complete blood chemistry, normal; sputum repeatedly negative for acid fast bacilli. Smears of sputum stained with carbol gentian violet showed numerous spirochetes of various shapes and forms (from 6 to 20 organisms to the oil immersion field). A diagnosis of broncho-pulmonary spirochetosis was made. and the man was sent to Fort Sam Houston Station Hospital, San Antonio, Texas. The findings of that hospital upon a period of observation lasting three weeks were identical with those of the Dallas office, and a board of three medical officers, upon reviewing the evidence in the case, arrived at the same diagnosis, broncho-pulmonary spirochetosis.

The peculiar feature presented by this case is that the man, despite the evident toxemia, has never shown any elevation of temperature during the whole period of observation either at the suboffice or at the hospital, although his pulse was frequently above 90 beats per minute.

Case No. 3—Mrs. H. T., was a white woman. 30 years old, slightly emaciated and anemic. The family history was negative and the past history has no bearing on her present condition. Her husband and three children, the youngest being 7 years old, are living and well. Her present illness dated from December, 1922, when she contracted a cold, which did not leave her as readily as usual. Two months after the beginning of her illness she had her first hemorrhage, when she expectorated about a small cupful of bright red blood. The sputum in the days following the hemorrhage was not any more bloody in character than the previous sputa, as one constantly sees in pulmonary hemorrhages of the tuberculous. Following this she had several hemorrhages at irregular intervals ranging from two to six months. She was seen by a chest specialist, diagnosed as tuberculous and sent to a sanatorium where she stayed for two months. Her treatment there, she states, consisted mostly of good food and rest, but she did not notice any improvement in her condition, the rest seemingly not affecting in the least her temperature, cough and feeling of general malaise. Since she left the sanatorium she has been under the care of her family physician, who, after treating her for over a year and not seeing any improvement, advised her to go to San Antonio for the winter. The patient was seen by Dr. J. Wolfe of Dallas, Texas, who called me in consultation on the case.

From her history I expected to find definite changes in the lungs, but a physical examination of the chest revealed no evidence of pathology, except for possibly a slight dullness over the left base and a lagging of respiratory movements of the left side, to which no particular significance was attached. A radiogram of the chest was practically negative, except for a slight thickening of the upper bronchi on both sides and slightly enlarged hilus shadows. Routine urine analysis was negative, the blood Wassermann was weakly positive, but not diagnostic for lues. The red count was 3,800,000 cells; the white count, 8,200 cells; the differential: 62 per cent polynuclear leucocytes, 8 per cent large mononuclear leucocytes, 28 per cent small lymphocytes and 2 per cent transitionals; the temperature taken on three afternoons varied from 98.6 to 99.3° F., with a pulse rate of from 90 to 105. Several specimens of sputum were uniformly bloody and mucopurulent. Repeated examinations of the sputa failed to show any tubercle bacilli, but on staining the smears with Fontana stain, as many as 20 spirochetes, markedly pleomorphic, were found to the oil immersion field. Specimens of sputum taken after the patient had rinsed her mouth and gargled her throat with 1:5000 potassium permanganate solution showed the same picture.

After the patient had been under my observation for about a week, private affairs compelled her family to leave the city and I lost contact with the case.

Three cases of hemorrhagic bronchitis are reported in this study. Two more were observed by us during the past six months at the Dallas regional office of the United States Veterans' Bureau, but they are not included in this series because they could not be hospitalized for confirmation of our findings, nor did we have an opportunity to observe them for a sufficiently long time.

The findings in these cases served as a stimulus to examine a large number of men referred for chest examination, for the presence of spirochetes in their sputa. To our surprise, over half of these cases—many with no definite pulmonary pathology—harbored spirochetes, which in their morphological and staining characteristics did not differ from those of our definitely proven cases of bronchopulmonary spirochetosis. It is true that the spirochetes were far less in number in these routinely examined cases, but their presence in the "lung sputum" was beyond question. Cultural characteristics of the organisms were not studied as all the investigators in this field agree that these spirochetes are extremely difficult to grow and that whatever results are obtained from their cultivation are unsatisfactory. Dark field examination of the sputa studied, which is of the greatest value in the diagnosis of any spirochetal infection, was of necessity omitted, being too time consuming. and therefore interfering with the arduous routine duties of the office.

Our studies so far seem to indicate that the usually accepted notions of this disease might bear further investigation. Several questions suggest themselves: (1) Is this disease a tropical one, or may it be endemic to any region? 2) Is the etiological factor a specific organism, or is it a normal inhabitant of the respiratory tract, such as the pneumococcus or Friedlander's bacillus, which only under certain conditions become pathogenic for the host? (3) Is it communicable or infectious as some of the authorities believe it to be?

DIAGNOSIS.

The diagnosis is not difficult when the possibility of a spirochetal infection is kept within the diagnostic horizon of the examiner. The outstanding points in the diagnosis of the chronic type of this condition, the type with which we are mainly concerned, are: cough, expectoration of bloody sputum, frank though slight pulmonary hemorrhages, loss of weight with slight secondary anemia—all these findings in the presence of sputum repeatedly negative for tubercle bacilli, and with negative physical and *x*-ray findings in the chest. The demonstration of the spirochetes in large numbers in the sputum, obtained especially in the mornings after a thorough mouth wash, and throat gargle, with 1:5000 potassium permanganate solution, definitely establishes the diagnosis. The best and easiest method for staining the organism is as follows: Spread the sputum gently (lest the spirochetes become distorted and broken up) over the slide in a very thin layer, pass from 8 to 10 times through the flame, allow to cool, cover with carbol gentian violet (Chaplewsky's stain) for three minutes, wash off well in running tap water, dry and examine under oil immersion.

TREATMENT.

In the acute cases the treatment is purely symptomatic. In chronic infections neosalvarsan, massive doses of iodides, and Fowler's solution are the treatment of choice. The guide to the treatment is the clinical condition of the patient and the diminution, until complete disappearance of blood-tinged sputum, with smears negative for spirochetes. Some writers have obtained success with tartar emetic and emetin where the arsenical preparations failed, but the majority report very good results with salvarsan and iodides.

CONCLUSIONS.

Broncho-pulmonary spirochetosis is undoubtedly a far more widely spread disease than the few meagre reports would indicate. Routine examination for the Spirocheta Bronchialis should be made in all cases of suspected pulmonary tuberculosis, which are negative for tubercle bacilli and on all cases of chronic cough, with or without blood-streaked sputum. The correct diagnosis is extremely important as broncho-pulmonary spirochetosis is a type of lung pathology in which the therapeutic indications are different from those of most other pulmonary conditions.

I wish to express my deep appreciation to Dr. J. Forsythe Rowe, regional medical officer, United States Veterans' Bureau, and to Dr. E. H. H. Foster, chief of the examining unit, for their whole-hearted coöperation in pursuing this study, and to Mrs. F. Graves, laboratorian, for her efficient aid in preparing the slides.

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ABSTRACT OF DISCUSSION.

Dr. J. H. Agnew, Houston: I have had the opportunity of seeing one case of broncho-pulmonary spirochetosis. The important lesson for us to learn in the study of this condition is to increase the accuracy of our diagnosis. It should teach us to never make a diagnosis of pulmonary tuberculosis unless we are absolutely positive. It is unfair to the patient to label him as tuberculous, when a thorough study of the case would show it to be one of spirochetosis. The latter condition is not fatal; the entire treatment is different, and the patient's whole outlook on life is changed.

Dr. Alvis E. Greer, Houston: I have seen four cases of spirochetosis bronchialis (Castellani). My observation has been that the treatment is very discouraging. Physical signs are usually very indefinite, and they consist of only slight dullness and granular breathing over the side of the lung affected. There are very few symptoms of toxemia and the patient may appear to be in good physical vigor. Many of these patients will expectorate easily a small amount of fetid blood. In the cases I have seen I have found lesions in the mouth similar to those of Vincent's Angina. I doubt that spirochetosis bronchialis (Castellani) is a disease entity, but believe that it is an extension of a Vincent's Angina infection from the mouth to the pulmonary tissue.

Dr. C. T. Stone, Galveston: Practically all of the cases of pyorrhea that I have studied have demonstrated the fusiform and spirilla-shaped organisms. I believe that it will subsequently be shown that they are of the same group as those in the lung.

I have seen one case of pulmonary spirochetosis. This patient had an area in the lung that was similar to a tuberculous process. The treatment of this condition is very disappointing. I have seen no benefit from the use of salvarsan or the other recommended methods of treatment. I believe that in the near future the spirochete will be better classified and its characteristics better known. Until these facts are known, the treatment of these conditions will continue to be disappointing.

Dr. Freed (closing): I cannot agree that the pulmonary infections are always extensions from the oral cavity. The cases that I have reported in my paper all had perfectly clear mouths and throats. Those cases that did have mouth infections were ruled out. We must admit that the therapeusis of this condition is at present very disappointing.

UNCOMMON CARDIAC ARHYTHMIAS.*

BY

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During the past five years, I have been especially interested in observing a number of cases, in which there were paroxysmal attacks of rapid heart action. Previous to this, I was under the impression that these conditions were rather rare and had not given more study to cardiac conditions than the average man, and, like the average man, had unconsciously arrived at this conclusion. Since then, I have become very much interested in this type of cardiac complication, and have found that these attacks, instead of being rather rare, are, on the other hand, rather frequent. The type of condition to which I allude is an attack of rapid heart action coming on very abruptly, lasting for from a few minutes to several hours, or even days, and terminating as abruptly as the onset. In reviewing the literature relative to these conditions, I have found that they are much more frequent in males than in females, and occur with greatest frequency in the fifth and sixth decades of life. In my experience, the time of life of these attacks has been in line with the observations of others, but, in a fairly large series of cases, there has been only one attack occurring in a man.

The outstanding objective finding in these cases has been the very rapid pulse. The subjective symptoms, on the other hand, have varied immensely with the individual case, notwithstanding that the pulse rate in all cases was very nearly the same. In most cases, the pulse rate has been in the neighborhood of 200 per minute (counted at the apex of the heart).

Before going into a detailed discussion of the individual members of this group of cases, I would like to briefly contrast the type of cardiac arhythmia with another type of rapid heart action, in which the mechanism is entirely different. There are two general groups of cases of rapid heart action. In one group, the mechanism is normal; this would be called a physiological tachycardia. The impulse of contraction arises in the normal sinus node situated near the opening of the superior vena cava in the right auricle, near the junction of the auricle with the right auricular appendix. The impulse of the normal systole arises in the normal pacemaker, and spreads to all parts of the heart muscle through the normal conduction system, and gives rise to a rapid heart action, whose cardiac cycles are normal in sequence, form, and time relations. The only difference between this type of heart action, and that present during rest is the rate. This type of heart action is the palpitation of nervousness, worry and fear. It is the tachycardia of the acute infections, such as pneumonia, scarlet fever, acute rheumatic fevers, etc., and the intoxications, such as hyperthyroidism. It is also the tachycardia of physical exertion. The rate is affected by posture, by emotion, and by stimulation of the vagus nerve. The rate is developed more or less gradually, and may vary to a greater or less degree during its existence, and return to the normal rate through gradual slowing.

On the other hand, the group in which we are interested is composed of paroxysms of tachycardia whose inception is due to an abnormal impulse. The impulse is called an ectopic impulse, that is, it has its origin in some irritable point outside of the normal pathway of conduction. For some reason, this site of impulse production has become more irritable than the normal pacemaker. It has thus acquired the ability to produce an impulse, which provokes a rhythm capable, for the time being, of submerging the normal pacemaker. This type of rapid heart action may be accompanied by symptoms of grave significance. The attacks are characterized by the seemingly haphazard manner in which they are provoked or terminated. They are characterized by the abrupt onset, by the astonishing regularity of sequence of cycles over long periods, and by their equally abrupt termination. The rate is not influenced by posture or by emotion. Their reaction to vagal and ocular pressure is characteristic for the different types.

The members of this group of pathological rapid heart action are the following: (1), paroxysms of auricular origin; (2) paroxysmal tachycardia arising in the auriculo-ventricular node; (3) paroxysmal tachycardia of ventricular origin; (4) paroxysmal

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auricular flutter, and (5), paroxysmal auricular fibrillation.

The most frequent and least dangerous type of paroxysmal tachycardia is that of auricular origin. The impulse arises in some irritable focus in the wall of the auricle. It spreads through the walls of the auricles and thence to the ventricles. Except for its abnormal origin, the rest of its course is relatively the same as in the normal impulse. The sequence of cardiac contractions is not disturbed; therefore, the heart is not working against a circulatory handicap. The rate of this type is usually 185 to 210 per minute. Its onset is abrupt. With a heart rate of 70 per minute, there suddenly arises a premature beat, which is abnormal in its origin; this ushers in a sequence of beats with a rate of perhaps 200 per minute. There is no transitional stage. It is only in the exceptional cases that the full rate is developed slowly. This new rate is astonishingly regular over the entire duration of the paroxysm. The lengths of the cycles differ less than one-hundreth of a second. This rapid rate may endure for a few minutes or several days. Pressure on the vagus nerve or on the eyeball has not the slightest effect on the rate in perhaps half of the cases, however, these measures produce abrupt termination of the paroxysm, that is, vagus or ocular pressure either has no effect at all upon the paroxysm, or else brings it to a sudden termination. The last beat of the paroxysm is followed by a post-paroxysmal pause, following upon which, in normal hearts, the original rate is resumed. In most cases, the rate before and after the paroxysm is the same. In exceptional cases, where there is some damage to the heart muscle, the normal rate may be developed more slowly. In these cases, the pause following the last beat of the paroxysm is unusually long and the original rate is gradually attained through several cycles, which gradually increase in rate.

Patients having the auricular type of tachycardia usually have frequent auricular extrasystoles. Frequently a paroxysm is preceded or immediately followed by shorter paroxysms, or by several isolated auricular extrasystoles. These short paroxysms and isolated beats almost invariably have the same origin as those composing the paroxysm. Therefore, if it is impossible to obtain an electrocardiogram of the paroxysm itself. a tracing taken shortly before or shortly after a paroxysm will reveal these isolated extrasystoles having the same point of origin as the beats of the paroxysm. This fact has been determined beyond doubt by means of the polygraph and by means of the electrocardiograph. In the electrocardiogram, the ventricular complexes, in the paroxysms of auricular tachycardia, are normal in configuration and time relations. This naturally follows, since the impulse, after arising in the auricle, pursues a normal course through the rest of the conduction system. The auricular complex is usually more or less atypical; it may be upright, though usually inverted. The farther the ectopic point of origin is from the sinus node, the more apt is the "P" wave to be inverted. The diagnosis of the auricular type of tachycardia is, therefore, easy by means of the electrocardiograph. The venous curve, made with the polygraph, usually shows the ventricular type of curve, the "a" and "c" waves usually falling altogether across the height of the ventricular wave. It is rare that an auricular wave is distinctly represented.

A very rare type of paroxysmal tachycardia is that arising over the A-V node. This is so rare, and the possibility of making a diagnosis except by means of the electrocardiograph so remote, that I will not discuss the condition in this paper.

A much less common and much more serious form of paroxysmal tachycardia is that arising from an irritable point somewhere in one or the other of the ventricles. Ventricular paroxysmal tachycardia should be as carefully differentiated as possible. It is usually associated with some form of grave cardiac disease. In a large portion of cases, this is sclerosis or obstruction of the coronary circulation. The impulse arising in the ventricle naturally must travel in a retrograde direction to excite the auricle to contraction. Therefore the auricle and ventricle either contract together, or the ventricular contraction precedes that of the auricle. The result is a serious handicap to the circulation. In spite of this serious mechanical handicap, the heart is often able to maintain a fairly efficient circulation for several hours. Paroxysms of ventricular tachycardia rarely last as long as the auricular types. In some cases, there is a marked disturbance in the circulation, with the diastolic and systolic blood-pressures approaching each other very closely; in some cases, the pulse pressure falling to 8 or 10 millimeters. If, as is the usual thing, there is in association with this condition a severe lesion of the heart muscle or its circulation, the resulting fall in pulse pressure is so great that serious damage may result. If, for instance, the cerebral blood vessels are greatly diseased, there may be sufficient asphyxiation of the brain, during one of these attacks, to cause permanent damage, or the circulation of an arm or a leg, or of one of the

organs may be damaged. This impaired circulation may result in gangrene.

Ventricular paroxysmal tachycardia is not so regular as the auricular type. This fact is an aid in differentiating the two conditions. This very slight irregularity can be detected in the electrocardiogram, or, if one listens for several minutes over the heart, an occasional period of slight irregularity will be detected. This never occurs in the auricular type. In the electrocardiogram, the ventricular complexes are all atypical, both in time relation and in configuration. Often, with a tracing like this, it is difficult for a definite diagnosis to be made, unless the beginning or the end of the paroxysm is obtained. A careful search should be made for the presence of auricular complexes. These will be atypical in appearance, and are usually superimposed somewhere upon the ventricular complex. They are especially difficult to identify when the form of the auricular complex is not known. The rate of the paroxysm is usually so rapid that unless the auriculo-ventricular node is in a healthy condition, a more or less advanced degree of retrograde block results. When this is present, the "P" wave, if identified, will be found to occur at a half or a third of the ventricular rate. When the "P" wave is superimposed on the "T" wave, the alteration in the form of the "T" wave leads to its identification. A condition, which might be confused with the ventricular type of paroxysmal tachycardia, is the auricular type in which the impulse is conducted through an abnormal pathway after reaching the ventricle, resulting in aberrant ventricular complexes. Vagus or ocular pressure rarely have any influence on the paroxysms of ventricular tachycardia. Change of posture, exertion and emotion have no influence.

Paroxysmal auricular flutter is a relatively rare condition. When examined by graphic methods, such as the electrocardiograph and polygraph, the diagnosis is immediate and easy. It usually occurs in patients who have more or less serious cardiac disease. The paroxysm begins suddenly and ends suddenly; it may last a few minutes to several hours. Pressure on the vagus has never been known to stop an attack; on the other hand, it causes a disturbance in the rate, thus showing an exactly opposite response from that of paroxysmal tachycardia of auricular origin. The electrocardiogram shows the auricular complex absent, and into its place a typical representation of the circus movement in the auricle, which gives rise to this type of heart action.

Another type of paroxysmal tachycardia is paroxysmal auricular fibrillation. This condition usually shows a heart rate, as counted over the apex, of 140 to 160 to the minute. There is an absolute irregularity, and no evidence of any rhythm whatever existing. The condition usually appears in people of middle life or beyond, who will eventually be subjects of the permanent type of auricular fibrillation. As in auricular flutter, the diagnosis by graphic methods is easy, the auricular complex being absent and the ventricular complex occurring without any evidence of rhythm.

CLINICAL OBSERVATION.

It is at the bedside that most diagnoses of heart conditions must be made. The means that we have at hand, under these conditions are: observation of the patient's condition, the count of the pulse rate, and auscultation over the heart. In paroxysmal auricular tachycardia, the patient is usually of the emotional type, with an unstable nervous system. During the attack, they show a certain amount of anxiety, restlessness and discomfort. They complain of palpitation, of a peculiar sinking feeling in the chest, or a sense of constriction. Sometimes, there is slight pain over the heart, or transmitted to the shoulder and, in exceptional cases, down the left arm. Counting the pulse shows a perfectly regular rate. In a case where there is a marked phasic variation in the strength of the pulse beats as a result of the respiratory movement, some of the beats do not reach the wrist, and give the impression of irregularity. Counting the heart rate over the heart itself, however, will reveal an absolute regularity, which is unaffected by posture, exertion, emotion or vagus stimulation. These patients may have frequent attacks of this type for years, without any damage being done to the heart. In fact, it is only rarely that the prognosis is affected by this paroxysm.

In contrast to this type of patient is the patient with the ventricular type of tachycardia. This is because of the association of serious heart disease with the paroxysm. The resulting handicap is so great that efficient circulation cannot be maintained. These patients appear very ill, are usually more or less cyanotic and frequently are covered with a profuse perspiration. They complain of vertigo, nausea, or even vomiting. They are too incapacitated to move from their bed. If one listens over the heart during one of these paroxysms, it may seem, at first, that the rate is absolutely regular; but, if one listens for several minutes at intervals of five or ten minutes, he will soon detect a slight but definite irregularity. This will distinguish the attack from the ordinary auricular type.

Auricular flutter can be differentiated from the above two types of paroxysms by counting the heart rate at the apex. The auricular rate in flutter is usually from 250 to 350 per minute. The auricular rate in the auricular type of tachycardia, with which it might be confused, is usually in the neighborhood of 200. The rapid auricular rate predisposes to a decrease in conduction time through the auriculo-ventricular node; the more rapid the auricular rate, the more apt this is to take place. Consequently, in flutter there is usually a 2 to 1 or a 3 to 1 block. This results in a ventricular rate of a half or a third of the auricular rate; therefore, if one finds a rate of 200, as counted at the apex, he can be assured that it is not flutter, as an auricular rate of 400 or more has never been known in auricular flutter in the human being.

Auricular fibrillation is never confused with any of the three types above described. Its absolute irregularity places it by itself.

PROGNOSIS.

The prognosis in the auricular type of tachycardia is good as far as the heart muscle itself is concerned. Many paroxysms may occur each year for many years without causing any serious or permanent damage to the heart muscle. The prognosis in the ventricular type, on the contrary, is very serious, because of the associated heart disease and the added damage done by each paroxysm of ventricular tachycardia. In flutter, the outlook points finally to the development of fibrillation of the permanent type. This is also the final outcome of the paroxysmal type of auricular fibrillation.

TREATMENT.

Concerning treatment of these conditions, I will confine my remarks principally to the use of quinine and the quinidine alkaloids in their application to the paroxysms of the auricular and the ventricular types of paroxysmal tachycardia. The effect of quinidine is chiefly a depression of the various functions of cardiac muscle. Its use causes a sharp depression in the conductivity of the specialized conduction pathway of the heart. Quinidine markedly decreases the irritability, excitability and contractility of the heart.

Lewis and his fellow workers, have shown by repeated experiment that quinidine prolongs the refractory period of the heart. It also has a marked effect in slowing the conduction of the excitation wave. The well known effects of quinidine in restoring the normal rhythm in auricular flutter and auricular fibrillation are explained by its power to lengthen the refractory period, thus preventing re-entry of the excitation wave on the track of an established circus movement. On the other hand, quinidine by its power to slow the conduction speed of the excitation wave, serves to terminate the production and transmission of an abnormal impulse. Thus the paroxysms of tachycardia are terminated and other paroxysms prevented.

The treatment of flutter and fibrillation lies more frequently in the realm of digitalis, than in that of quinidine. In the exceptional case, of course, quinidine may be used in flutter and fibrillation to restore the normal rhythm without preliminary digitalis administration. These are the rare cases, however, in which there is no evidence of heart failure; otherwise, digitalis precedes quinidine in the treatment of these two phenomena.

Not only is digitalis not useful in paroxysmal tachycardia of auricular or ventricular origin, but in these two conditions it is positively contraindicated. In fact, they are not infrequently brought on by excessive digitalis administration, and to administer digitalis in these conditions, especially in the ventricular type, may be to invite a fatal outcome.

When a case of paroxysmal tachycardia is first seen, every effort should be resorted to in an attempt to arrive at a certain diagnosis. Vagal and ocular pressure should be used with sufficient care and energy to gain full effect of this stimulation. Pressure over the right vagus should be sufficiently firm and sufficiently prolonged to be quite unpleasant to the patient. Ocular pressure, properly applied, should be painful. If these measures are intelligently and energetically applied, somewhat less than half the paroxysms of auricular tachycardia will cease abruptly. Rarely does the paroxysm resume. These measures, so far as I am able to learn, have never been successful in the ventricular type.

In my experience, quinidine has been successful, with one exception, in not only terminating the paroxysm, but in preventing the majority of recurrences. The dose varies with the individual. It has been my practice to use either quinidine or quinidine sulphate. In treating the paroxysm, the usual mechanical measures described before have first been given a trial. When these have failed to terminate the paroxysm, quinidine was administered by mouth. I have never administered a large dose without having previously determined the patient's reaction to a smaller dose. To determine whether or not a patient has an idiosyncrasy for quinidine, two doses of six grains

each were given four hours apart. Having ascertained the patient's reaction, one can proceed without fear, for one never needs doses large enough to cause severe intoxication.

When the next paroxysm appears, the patient is given from 6 to 18 grains at a single dose, depending upon the results of the test doses. If the attack has not been terminated within an hour to an hour and a half, another somewhat smaller dose is administered. I have rarely been forced to repeat the dose more than twice. When the paroxysm ceases, its termination is as abrupt as its onset. Following the attack, if there is no associated heart disease, the patient feels little the worse for having had the attack. There is a feeling of fatigue or somnolence and, occasionally, ringing in the ears and slight blurring of the vision as a quinidine effect. There have rarely been any alarming symptoms and these, if any, could usually be attributed to some associated heart disease.

In preventing future attacks, especially in these patients having frequent recurrences, the best method is to give the daily dose divided into three or four equal doses. The effect of quinidine is transient, fully 80 per cent being excreted in the urine within from 18 to 20 hours. After being taken by mouth, it appears in the urine in an hour and a half or two hours. When the daily quinidine requirement has thus been determined, the patient is allowed to continue the dosage for several months in the hope that the point of excitability may disappear and impulse production cease. In no case has more than 24 grains a day been required. The single exception alluded to did not tolerate quinidine. When her paroxysms begin, she is given, as soon as possible, 5 grains of quinine dihydrochloride, intravenously, repeated in half an hour. This method is usually successful in from one and a half to three hours. Her usual paroxysm lasts from 10 to 15 hours.

I have seen only one case which I thought was of the auricular type, and not being able to secure an electrocardiogram, I could not be sure. No measure was successful in treating this case.

ABSTRACT OF DISCUSSION.

Dr. T. H. Harris, Galveston: I have been very much interested in the cases reported by Dr. Nesbit. I can appreciate his work because I realize how difficult it is to assign some of the cases to any definite type. In my experience, it is impossible in some cases to make a diagnosis without the use of the electrocardiograph. By ordinary means of examination a case may seem to be one of fibrillation and prove to be some unusual type of arythmia and not fibrillation at all.

Dr. J. Kopecky, Galveston: I have recently had opportunity to observe two interesting cases of paroxysmal tachycardia. One was a case of nodal paroxysmal tachycardia; the other, of ventricular paroxysmal tachycardia. The latter occurred in a patient with chronic tricuspid disease; he had Cheyne-Stokes respiration, and for about 10 seconds of each minute, during the phase of apnea, the heart rate rose to 180 per minute; the "EKG" showed paroxysmal tachycardia arising somewhere in the right ventricle.

Dr. C. M. Grisby, Dallas: One interesting diagnostic point in paroxysmal tachycardia is that even with as high a pulse rate as 200 per minute, the patient is usually lying comfortably in bed. In the treatment of these cases, I like the combination of apomorphin and strychnin; they occasionally bring about a recovery.

Dr. G. Werley, El Paso: In the treatment of paroxysmal tachycardia, apomorphin is an excellent remedy. I find that 1/30 of a grain is a sufficient dose. The continued use of quinine will reduce the irritability of the heart and reduce the frequency of attacks. I placed one patient on quinidine for a year; for the past year he has not taken it, and is still free from attacks. When giving digitalis in fibrillation, if the heart does not respond by slowing its rate, the addition of 5 grains of quinine sulphate three times a day, will often improve the rhythm.

Dr. Nesbit (closing): I was much interested in the case of ventricular paroxysmal tachycardia reported by Dr. Kopecky. There have only been 20 such cases reported in the literature. Auricular tachycardia can be diagnosed from clinical observation. These conditions of paroxysmal tachycardia can be stopped in many peculiar ways. I had one patient who stopped her attacks by putting her finger down her mouth, which produced a nausea like apomorphin. I had one case in which the tachycardia was stopped by the administration of parathyroid.

HEART PAIN.*

BY

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The study of pain in or around the heart is of great importance. In the first place, it is *the one* subjective symptom that will send the patient to a doctor for advice; in the second place, it is with the probable exception of dyspnea the most frequent first symptom of which cardiac patients complain. The significance of this pain might be of great importance as far as the health and life of the patient are concerned, but on the other hand it might be of no importance. I thought a discussion of this subject at this time would be opportune so that we might more properly interpret our patients' cardiac pains and so give them their true practical value when applied to prognosis and treatment. In presenting this subject of heart pain to you, I am dealing with it in a broad sense, that is, all pains of cardiac origin are included.

It is almost a tradition in medical literature that whenever precordial pain is men-

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tioned, angina pectoris is meant. The name angina pectoris conveys such direful consequence both to the physician and laity, that the presence of pain of whatever intensity around the heart terrifies the sufferer. We know that there are pains around the heart that are not serious, so why call every precordial pain angina pectoris. Inaccurate terminology leads to inaccurate conclusions. Incorrect diagnoses of heart conditions cause much unnecessary anguish and unnecessary treatment.

We agree that there is a great deal about the causative factors and mechanism of pain about the heart that we do not know. When such leaders of medical thought as Osler, Albutt and Mackenzie are at variance in reference to the exact pathogenesis of pain, it is to be expected that we are, in reference to such facts, in the dark. But there are some practical points about heart pain that I want to present to you. The intensity of the pain does *not* indicate the seriousness of the condition. That occurring in a nervous individual, for instance, in a young woman suffering from nerve exhaustion, whose threshold for pain is low, is very much more intense than in a placid individual. Mackenzie notes this fact when he writes: "It is a well recognized fact that seemingly identical lesions of the heart give rise to different phenomena in different people. Experience has taught me to look on angina pectoris from a two-fold aspect, an expression of cardiac exhaustion and also an expression of a susceptible nervous system."

There has been quite a bit of confusion in reference to the classification of heart pain, due to the age old controversy as to the cause of severe paroxysmal precordial pain. This controversy has come down to this good day, led on the one hand by Sir Clifford Albutt who holds that disease of the aortic valve and distention of the aorta are the cause of angina pectoris, and, on the other hand, led by Sir James Mackenzie who holds that it is due to acute myocardial weakness from coronary artery disease and myocarditis.

To show you the variety of conditions in which precordial pains were found, I have analysed the cases of 100 patients who came to our clinic saying that pain around the heart was their chief complaint, as follows:

Angina pectoris (classical)	15
Heart failure or myocardial weakness	42
Cardiac neurosis	17
Hypertension	17
Chronic endocarditis (valvular disease)	7
Aortitis (luetic)	2
Total number of cases	100

Since we find cardiac pain differing in so many ways, in causation, in severity and in significance, I find the following classification of White and Wood (*Jour. A. M. A.*, August 18, 1923) a very satisfactory one:

1. Simple fatigue pain.
2. Nervous heart pain.
3. Paroxysmal heart pain (angina pectoris).
4. Pain of cardiac thrombosis.
5. Aortic pain, *i. e.*, aortitis and aneurysm.
6. Pain of pericarditis.

1. PAIN OF MYOCARDIAL WEAKNESS OR FAILURE.

Quite often a patient will receive a warning that he is overtaxing his heart by means of a precordial pain, which warning, if taken in the beginning, will keep him out of chronic invalidism, or from death. This class takes into account all heart muscular weakness from whatever cause, myocarditis, hypertension, valvular lesions, and the different types of arrhythmias. Under this class we will find most of the heart pains, as the analysis just given shows that there are 66 out of 100 cases of precordial pain as one of the first subjective symptoms that come in this heading.

It is well to keep in mind that there are various degrees of pain in this condition, varying from a very slight precordial ache to a very severe form of agonizing pain. This pain may radiate from the precordium into the shoulders, either or both, and down into the arm. As to location, cardiac pain has been divided into two types, submammary and supramammary. The pain associated with myocardial failure is usually submammary, at times radiating into the back. The supramammary type is of the constricting variety, radiating into the shoulders and arms; in other words, the type going with true classical angina pectoris, and so is of more serious import than the former.

This pain is very often associated with dyspnea. As a rule, dyspnea is the most frequent subjective symptom to be followed shortly by pain. It is wonderful how much benefit, comfort and years can be added to a man's age, if he will only heed the warning and live properly, as is illustrated by the following case:

Case No. 1.—Just a few days ago a gentleman of Dallas celebrated his eightieth birthday, saying he was definitely on his way to a century. I saw this gentleman fifteen years ago, in such a condition that I did not think he could live more than a few days. We told him so and he made his will, which has long since been torn up. At that time he was having daily several attacks of precordial pain and the least effort or emotion would bring on an attack. He had been carrying a fairly high blood-pressure, 180-110, for some months. The initial attack of pain was brought on by overwork under rather stressing circumstances. He rested at home for several months, put aside all business worries and regulated his life, so as not to overtax himself in any way, and so for 12 years he has not had a

semblance of his heart pain and looks today as if he might achieve his ambition to be centenarian.

The pain of heart fatigue is often found in valvular diseases, more particularly in mitral stenosis with auricular fibrillation. This pain is usually dull in character and is located around the apex, the submammary type.

Then again we find it in the toxic type, chronic infections from teeth or tonsils, or from excessive tobacco. This condition is well illustrated by the following patient:

Case No. 2.—A man, 52 years old, said he was witnessing a college football game last fall, in which he was very much interested, when, during a very critical stage of the game, he was seized with a severe pain over his heart that stunned him. It soon passed off. In the evening of the same day on exerting himself he had a return of the pain. His history was, he had always been in good health, for several months he has been fighting the oil game and has been a very heavy loser; as a result was quite nervous, smoking excessively, and could not sleep. He was very toxic, tongue coated heavily, breath foul. Teeth showed many chronic periapical abscesses. The regulation of his life, cleaning up of his teeth, attention to his diet, and exercise after several days of rest have restored his heart muscle and so he has had no return of pain.

2. NERVOUS HEART PAIN.

In referring to above chart of cardiac pains, you will note that cardiac neurosis is a frequent diagnosis in precordial pain, occurring in 17 out of a possible 100 cases. It is found more frequently in young people, and decidedly more in women than in men. It is often associated with the visceroptotic type and is not infrequently found in the category of complaints of women during the menopause. In these cases the pain is very distressing.

The character and intensity of the pain in these cases vary greatly; the pain may be a mere aching, yet due to the patient's nerve response it is to him a severe pain and of tremendous importance. Instead of exertion bringing on this pain, as in other types of cardiac pain, it is brought on by excitement. Reassurance and bromides gives good results rather quickly in such cases. Many cases of that group that was called "neuro-circulatory asthenia" during the War, suffered from this pain. Young men whose parentage had an unstable nervous system, furnished a majority of these cases.

Case No. 3.—A college boy, 20 years of age, of well-to-do family, came to us complaining of "pain over heart and shortness of breath." His mother was quite neurotic. He gave a history of having had the diseases of childhood, all of them being rather severe. He had had no other illness except tonsillitis, for which he had a tonsillectomy several years ago. His present trouble began about three years ago. His main trouble was pain over heart, some shortness of breath with sighing respiration, some eructation of gas but no food, and dizzy spells. He was quite apprenhensive about himself.

Examination showed him to be only fairly well nourished and developed. His skin was moist; his hands blue, and dermatographia was rather marked. His heart showed normal tone and no murmurs. The blood-pressure was 100-80. The lungs clear. The abdomen was long and flat. The blood and urine were normal. An *x*-ray of the thorax shows a ptosed heart.

Diagnosis: Neuro-circulatory asthenia.

3. PAROXYSMAL HEART PAIN.

This group represents the real classical angina pectoris. The mechanism of the production of this pain has furnished the real storm center for discussion for years. It is a clear cut and unmistakable syndrome and so should be classified apart from the other precordial pains. This term, angina pectoris, should include all cases of pseudo and modified angina; these latter terms should be dropped from our nomenclature.

Paroxysmal heart pain may be brought on in susceptible people by very slight causes at times, either internal or external, physical or emotional, for instance, overloading of stomach with gas formation, a sudden draught of cold air striking the body, sudden effort, or any emotion, such as anger or worry. It is most frequently brought on by effort, appears suddenly, and lasts only a few seconds as a rule. It is located in the supramammary area, radiates into the shoulder and down the arm—usually the left—is constricting or gripping in character, and forces the sufferer to be absolutely still. The pulse is very slightly influenced in an attack. It is interesting to know that Heberden in his original description of this catastrophe stated that *pain* and *not disturbed rhythm* is the characteristic of this condition.

It is well to study the nervous system of the patient, past and present, going into his family history in order to judge the importance of painful sensations around one's heart. The radiation of the pain in this condition is in some people very extensive, sometimes radiating into the epigastrium and then again beginning in the upper abdomen and radiating upward into the thorax. This pain is often mistaken and treated for acute indigestion and gallbladder colic. At times this is a very difficult problem in differential diagnosis. In some cases you will find a double lesion present, gallbladder and cardiac disease as described several years ago by Doctor Babcock.

Angina pectoris is written after the names of many members of our honored profession. Why? Too much responsibility; too many hours of strenuous mental and physical effort; too much of life spent in irregular habits; too little time spent in diversions as fishing, hunting and golfing; too few hobbies!

A while back I happened to be near one of our old friends, just as he was entering his car. He stopped abruptly with one foot on the running board and one hand holding to the car, while with the other hand he was searching his vest pocket for something. When I reached his side I saw a classical picture of this terrible disease written on his face. He told me this was the third attack, and that he carried perls of amyl nitrite in his pocket. The next paroxysm occurring shortly after this took this good man's life, one of the prominent old-time family physicians of our city of a few years ago.

We must differentiate this paroxysmal precordial pain, due usually to coronary sclerosis from the cardiac pain of muscular weakness in hypertensive cases, valvular lesions and the heart pain of nervous origin.

4. PAIN OF CORONARY THROMBOSIS.

The pain of coronary thrombosis is peculiar in that it is constant, lasting a period of hours or sometimes days—status anginosus. It is very severe and is similar to the pain of angina pectoris usually beginning substernally and radiating to the shoulders and into the epigastrium and right hypochondriac region. It is sometimes diagnosed acute gallbladder colic or peptic ulcer perforation. It is not relieved by rest or nitrites; morphin in rather frequent doses is required. As the name indicates, it is due to a blocking of one of the coronary arteries. Some time ago I saw a case of this disease with Dr. Freedman of our city. A merchant about 55 years of age was under treatment for hypertension and was having an occasional attack of paroxysmal precordial pain. He was taken with a severe precordial pain radiating into his neck and shoulders, that did not give way as other attacks had done to the inhalation of nitrite of amyl. Morphin was given repeatedly and yet the distressing pain continued for three full days without cessation. He was perfectly rational until the end which came at the close of the third day.

5. AORTIC PAIN.

The pain caused by aortitis or aortic aneurysm is under the upper sternum and is dull and aching in character. It is not paroxysmal but, of course, is markedly increased at times. The cause is usually lues and so requires appropriate treatment.

CONCLUSIONS.

1. A simplified classification of heart pain is suggested, in line with etiological factors at work.

2. The differentiation of pain of cardiac origin is of great importance, for it has direct bearing on the prognosis and treatment.

ABSTRACT OF DISCUSSION.

Dr. G. Werley, El Paso: Only by postmortem examination can we make our study of heart pain complete. Some 80 theories of angina pectoris have been put forward. I believe that 1,000 well done postmortems on persons dying with symptoms of angina would settle the question forever. So far we have found coronary sclerosis in every case. Of course, as Dr. Baird has well brought out, every heart pain is not due to angina pectoris. I believe that heart pains are a protective phenomenon. Some hearts throw out the alarm for slight causes, other hearts that are badly damaged give very little pain. That depends on the amount of blocking in the sensory tracts, the height of the threshold for pain.

Dr. J. Kopecky, Galveston: In determining the etiology of heart pain, we must not lay too much stress on the location, quality, intensity and radiation of the pain. Radiation depends largely on the intensity of the pain. Much information as to the etiology may be obtained by careful study of the circumstances that bring on the attacks of pain; also, as Woods points out, from studying the effects of bromides, digitalis, nitrites and iodides on the pain.

DIABETIC COMA.*

BY

S. H. KAHN, M. D.,
DALLAS, TEXAS.

Diabetic coma, from its nature, is a condition that falls first, in the majority of instances, into the hands of the family physician; and because the early treatment of the condition is so important in the final outcome, wide-spread distribution of the more important and generally accepted methods of treatment is desirable. It is my object in this paper to call attention to a few points, some of which have received little or no stressing in the past.

One of the most important factors that enter into the early treatment of diabetic coma, and one that can immediately be determined, is whether the patient is in coma, or whether he is in that condition which has been designated as pre-coma. It has been previously shown by us,[1] and has been observed by others as well that the power of insulin to reduce blood sugar diminishes as the extent of coma increases. A patient to be classed as comatose need not be entirely and totally unconscious. "By coma is meant that condition from which a person cannot be aroused or can be aroused with difficulty, and who is incapable of any complicated response."[2] That is to say, a patient who can be aroused to an extent that he can only answer yes or no to a pointed question, or who may open his eyes when shouted at, should still be classed as comatose. Patients

*Read before the Section on Medicine and Diseases of Children, State Medical Association of Texas, Austin, May 7, 1925.

1. Kahn, S. H.: "Reduction of Human Blood Sugar by Means of Insulin," Boston Med. and Surg. Jour., Vol. cxci, p. 161, July 24, 1924.

2. Joslin, E. P.: Third Ed., p. 82.

who respond to stimuli in the above-mentioned manner usually have absolutely no recollection of the same, and also have a complete amnesia for the period of the greatest acidosis. Pre-coma cases, on the other hand, though presenting similar signs, are capable of (fairly) accurate response to stimuli. Ordinarily, the cases fall into one of these two groups; however, rather infrequently, one sees a case that is not so well defined and therefore could be placed into either of these two groups.

Air-hunger is present in both groups of cases and is as marked in the pre-coma as in the coma cases. There is a striking relationship between air-hunger and the blood plasma bicarbonate. Air-hunger is marked when the plasma bicarbonate is about 20 per cent (volume) or less; and as the plasma bicarbonate rises there is a sharp amelioration of the air-hunger, with a resulting more normal type of respiration. We have found that when the plasma bicarbonate is approximately 25 per cent (volume) there is usually noticed a definite amelioration of the air-hunger, and at a level of about 30 per cent (volume) it has practically disappeared. In our experience, true Kussmaul breathing is a reliable index of the plasma bicarbonate level, and is present only with a plasma bicarbonate of below 25 per cent (volume.) The plasma bicarbonate determination is of great importance when there is doubt as to the diabetic origin of the hyperpnea. Marked hyperpnea in the presence of a plasma bicarbonate of 30 per cent (volume) or over, should at once lead one to suspect a cause other than diabetes, particularly, meningitis, pneumonia, cardiac decompensation, or uremia.

Blood sugar determinations should be done if at all possible and should be repeated as often as indicated, for, I believe, it gives one the most important criterion on which to base insulin administration. Merely one determination gives the observer that feeling of security which cannot be obtained in any other manner. The blood sugars in coma cases are considerably higher as a whole than in pre-coma cases, and because of this require more insulin to regain the normal level than do the pre-coma cases. In a series of cases that we have reported elsewhere,[3] we found that no case of coma showing a satisfactory response to treatment (that is, bring the patient out of coma, and entirely relieve the air-hunger) received less than about 75 units of insulin. The cases whose blood sugars ranged from .3 to .4 gram per 100 cc. of blood, required from 50 to 100 units in four cases out of five; the cases whose blood sugars ranged from .6 to .75 gram required from 110 to 170 units in four cases out of five, and a case with a blood sugar of a little over .9 gram required 400 units. In the pre-coma cases 80 per cent required about 35 units. Hence one may conclude that the initial dose of insulin in a true case of coma should range from 50 to 100 units, while in pre-coma cases it should be about 35 units.

Further administration in either type of case should be repeated at about three-hour intervals; the amount in any case depending on either the fall in blood sugar, the relief of the air-hunger, or the rise in the plasma bicarbonate, the reduction in the amounts of sugar and diacetic acid in the urine, and the general improvement of the patient. A maximum amount of 400 units in coma cases and 100 units in pre-coma cases will hardly ever be required. In borderline cases, that is, cases that could be placed in either group, the amount of insulin to be used should range between that required in coma and that in pre-coma cases.

The importance of frequent urine examinations for sugar and diacetic acid cannot be overestimated. The urine should be examined every three hours, catheterization probably being necessary for a period of some hours. Particularly should they be frequently repeated if no blood sugar determinations are available. Large amounts of sugar and diacetic acid are almost invariably present in the beginning. Albumin and casts are the rule in coma cases, about sixty per cent of these cases showing kidney involvement with well marked nitrogen retention. Pre-coma cases, except in rare instances, show no such kidney involvement, and if such be found it should lead one to suspect coincident kidney disease.

The use of alkali in the treatment of severe diabetic acidosis is again drawing fire from some sources.[4] The question naturally arises, when should a case receive alkali and how much should be given? It has been our custom[5] to give alkali to those cases who show little or no relief from air-hunger or whose plasma bicarbonate fails to show an appreciable rise at about six hours after the beginning of antiketosis therapy. Thus it was deemed necessary to give one-half of the coma cases and only one-tenth of the pre-coma cases sodium bicarbonate intravenously. It was found that the coma cases required considerably more alkali than the pre-coma cases—the former averaging about 35

3. To be published.

4. Jour. A. M. A., Current Comment, Vol. lxxxiv, p. 1123, April 11, 1925.

5. Olmsted, W. H. and Kahn, S. H.: "Observations on Use of Insulin in Diabetes Mellitus, Diabetic Coma" Vol. 80, p. 1903, June 30, 1923.

grams, the latter about 20 grams. The chemical is best given intravenously in an eight per cent solution, and preferably in two doses rather than at one time. In none of these cases was there produced an alkalosis.

Foster[6] has recently stressed the importance of anhydremia in diabetic acidosis. It has been our custom to give at once a liter of normal salt solution subcutaneously to coma cases, further administration of fluids depending upon the time at which the patient can take fluids by mouth. We have not found it necessary to administer fluids to pre-coma cases, for these cases are practically always able to take fluids by mouth in less than three hours after treatment is begun. As soon as the patient is able to take fluids by mouth, water is forced and glucose in the form of fruit juice is given. On the first post-coma day the patient receives about 60 grams of carbohydrate divided into three or four feedings, at the same time receiving that amount of insulin which should theoretically burn the administered glucose. This is repeated on the second post-coma day. On the third post-coma day the patient is given a liquid or soft diet containing protein 50 grams fat 100 grams and carbohydrate 60 grams, divided into three or four feedings. At this stage of convalescence, these cases require about 1.5 units of insulin for each gram of carbohydrate intake.

No paper on diabetic coma should fail to call attention to the very great importance of infection in the production of coma. The havoc that infection plays with tolerance is well known. In our series of cases, fifty per cent of each of the two groups had severe acute infections, and of the five that died, death was attributed to infection in four. None of the pre-coma cases died.

I now wish to call attention to a few important "exceptions," as it were, to the ordinary run of diabetic coma cases. There are now three cases of coma on record in which the blood sugar failed to be influenced by insulin.[1,7] Occasionally one may find only a moderate glycosuria in the presence of a marked hyperglycemia. This occurred in one of our cases who had an accompanying acute glomerular nephritis. Occasionally, too, one may find only a moderately strong diacetic acid reaction, or even a negative reaction, in an apparently ordinary diabetic coma,[8,9]—this speaks either for the failure on the part of the kidneys to excrete the same or for the presence of some other organic acid.

6. Foster, N. B.: Jour. A. M. A., Vol. lxxxiv, p. 719, March 7, 1925.
7. Feinblatt, H. M.: Arch. Int. Med., Vol. xxxiv, p. 508, October 15, 1924.
8. Bock, Field, Adair: Jour. Metab. Research, 1923.
9. Argy, W. P.: Boston Med. and Surg. Jour., Vol. cxciii, p. 1236, December 31, 1925.

ABSTRACT OF DISCUSSION.

Dr. C. T. Stone, Galveston: The administration of alkalis in the treatment of diabetic coma is quite an important question at the present time. The advocates against the idea are headed by Joslin. Joslin concludes from his experience that in diabetic coma the patient does better without alkalis. He finds that he can get good results from rest in bed, warmth, small amounts of glucose, enemas, gastric lavage and abundant fluids—250 cc. hourly. He reports recovery in 8 out of 10 cases, without alkalis. My experience has been that the cases of diabetic coma make good recoveries without the administration of alkalis. In reference to the laboratory findings, 1.9 per cent of sugar in the blood during coma, is the highest that I have ever seen. As you know, the blood sugar in diabetic coma may range from a great elevation to a small one.

Dr. Kahn (closing): Sodium bicarbonate unquestionably holds a very definite place in the treatment of diabetic coma. In our hands, used for the reasons and in the manner as previously outlined, it has in all cases greatly shortened the period of acid poisoning, and consequently has reduced the occurrence of grave secondary disturbances that might result from as profound a metabolic disorder as diabetic coma. In our series of pre-coma cases, the highest blood sugar was .4 gram.

SOME IMPROVEMENTS IN THE MANAGEMENT OF INTRA-ABDOMINAL INFECTIONS*

BY

A. O. SINGLETON, M. D.,
GALVESTON, TEXAS.

The topic of this paper allows of a wide scope of discussion which might occupy many hours, but I shall confine its contents to the technique of the operation for suppurative abdominal conditions. It is possible that I will say nothing but what you are already familiar with, but some changes in technique which we have practiced for the past year or more, have been a source of so much satisfaction that possibly they may be of some assistance to others.

It is a universal practice for surgeons to use every effort to prevent the spread of infected fluids to parts of the peritoneal cavity, and among the unsoiled or uninfected coils of the intestines when operating for suppurative appendicitis, appendiceal abscess, suppurative gallbladder, pyosalpynx, and intra-abdominal abscesses and infections of all kinds. I particularly desire to emphasize the importance of extending these precautions to protecting the abdominal walls.

The seriousness of infection largely depends upon, first, the number of bacteria present, and secondly, the resistance of the tissues to infective organisms. The peritoneum probably has more inherent resistance

*Read before the Section on Surgery, State Medical Association of Texas, at Austin, May 5, 1925.

to infection than any other tissue of the body, while muscle, fascia and subcutaneous fat have rapidly decreasing power of self-protection against bacteria in the order named. Little anxiety need usually be felt for the peritoneal cavity, even though soiling to a moderate degree occurs, because of the immunity it enjoys; but the bacteria must be limited to an extremely low number in the abdominal wound, if it is to escape suppuration. Observation leads me to believe that infection does not invade wounds or parts of wounds by direct extension if the products of suppuration have free access to escape, but that the bacteria, which are implanted within the wound before closure, are the causes of the suppuration. Therefore, it naturally follows that the nearer to an aseptic state we approach, the greater the chance for primary union in the wound.

Again, it has been stated that the resistance of the tissues to bacteria is important, and this is true, even in the abdominal wall where it is undoubtedly low. The resistance can be reduced still lower by unnecessary traumatism in operating. Undue roughness in handling, and devitalizing the tissues by the use of large crushing forceps, particularly upon fascial edges, prepares a safe harbor for any bacteria which have entered and invites disaster to the weakly resisting wound.

What surgeon has not seen disaster occasionally follow a suppurating abdominal wound. One of the most distressing experiences one may have is for extensive infection to occur in one's operative wound, which too often may lead to prolonged convalescence and, occasionally, even to death. Only a few years ago, in spite of what we considered much care, in cases where abscesses were evacuated, it was taken for granted that the abdominal wound, muscles, and particularly the subcutaneous fat and skin, would become infected. The degree of suppuration varies from slight infection of the subcutaneous fat to extensive sloughing of the muscles and fascia, resulting in prolonged convalescence, and often in large postoperative hernias. Infection in the abdominal wound was so commonly expected that it was formerly customary for us to put drains between the muscle layers of the abdominal wall when closing, anticipating infection. Instead of this condition, at the present time we are securing primary union in a remarkably larger percentage of cases, even with severe and extensive infection, such as appendiceal abscesses, pelvic abscesses, pus tubes and suppurative gallbladders.

Eliminating any reference to the advantages of one incision over another, the technique of the operative procedures is given in the following steps:

1. When the incision is made through the skin and muscles, if free pus is expected in the abdominal cavity, heavy pads of saline gauze are placed securely over all raw surfaces before the peritoneum is opened.

2. If no suppuration is found when the peritoneum is opened, its edges are clipped to the skin margin, where possible, around the incision with towel clips, thus limiting the raw surfaces exposed.

3. After this the intestines are packed off with saline gauze. Then saline gauze of several thicknesses is accurately placed entirely around the edges of the wound, and all raw surfaces carefully protected before retractors are applied over this gauze.

4. Now one is ready to evacuate the abscess or deal with the infected organ whatever it may be. A most important adjunct to make use of at this stage of the operation, is an aspirator or suction apparatus, either electric or water power. Too much importance cannot be placed upon the advantages gained by always having this appliance ready and available in possible intra-abdominal suppurations. With care the pus can often thus be removed, without allowing it to flow over the wound or exposed intestines. Also, by its use protective granulations or adhesions are not disturbed, as may result from wiping or sponging with gauze. When you have finished, drainage may or may not be needed.

5. If drains are used they are now put in place, and retractors, gauze packs and all protections about the wound, are carefully removed.

6. The surgeon and assistants change to fresh gloves, fresh sheets are placed about the wound, and an entirely fresh supply of instruments are used to close the wound.

If sufficient care has been used, the wound has not been soiled and primary union can be expected, except immediately about the drains. Deliberation, more free incisions and the spending of a few minutes of extra time is necessary, but I am strongly convinced that it is worth while. This extra care and time may mean the saving of the abdominal wall. It results in a more rapid and less severe convalescence, and may possibly often mean the saving of life.

ABSTRACT OF DISCUSSION.

Dr. O. J. Potthast, San Antonio: Following the use of Coffey's "quarantine pack," I have found it the rule to have the wounds of infected cases heal by first intention up to the drain. Of course, precautions are used through the operation to protect the wound. Hereafter I expect to use the methods presented by Dr. Singleton. Coffey's "quarantine

pack" consists of gauze strips covering the infected area and surrounded by rubber tissue.

Dr. Frank L. Barnes, Houston: There is one little point of technique in the prevention of hernia which I think is important and that is not to put sutures down through the fascia. I put in three drains and remove them one at a time and on separate days. I leave the last drain until about the fifth or seventh day. When the drains are removed, broad surfaces are left approximated. They heal promptly and about as well as a small incision in a clean operation.

Dr. B. H. Passmore, Corpus Christi: Many cases with suppuration and drainage heal by first intention up to the drainage tube without the careful technic described by Dr. Singleton, but an occasional case does not. The extra trouble is slight and every thing should be done to prevent even an occasional infection of the abdominal wound. It is wonderful how many sterile wounds we get in closing up with the same instruments and gloves that we have used in handling infected material in the abdomen. Of course, it is important to protect the sterile part of the wound with separate dressings, bringing out the drainage into other dressings.

Dr. Singleton (closing): It is a fact that we can do these operations without infecting the wounds, and at least with the least amount of contamination possible. Infection depends upon the resistance of the tissues and upon the number and kind of bacteria. It is our duty to prevent infections when possible and make these operations as nearly aseptic as possible.

SURGICAL TREATMENT OF INTRACRANIAL HEMORRHAGE IN THE NEWBORN.*

BY

WILLIAM O. OTT, M. D., F. A. C. S.,
FORT WORTH, TEXAS.

Intracranial hemorrhage in the newborn is a condition that occurs much more often than was formerly supposed, and is being recognized more frequently. Conditions such as asphyxia neonatorum, blue babies, and convulsions in the first few days of life, which were formerly ascribed to various other causes, are most often due to cerebral hemorrhage. Contrary to the view formerly held, it has been found to occur frequently in perfectly normal deliveries but, of course, occurs more frequently following an abnormal or instrumental delivery. Sharp and Maclaire[1] performed routine spinal punctures in two hundred newborn babies, and in 9 per cent of the first one hundred consecutive births and in 13 per cent of the second one hundred consecutive births in the City Hospital, Welfare Island, bloody cerebro-spinal fluid was present. Worwick[2] states that in 50 per cent of the fatal cases in young infants at the University Hospital, Minneapolis, cerebral hemorrhage had occurred.

*Read before the Northwest Texas District Medical Society, Mineral Wells, Texas, October 15, 1925.

1. Sharp, William and Maclaire, A. S.: "Intracranial Hemorrhage in the Newborn," Surg., Gynec. and Obstet., Vol. xxxviii, p. 200.

2. Worwick, Margaret: Amer. Jour. Med. Sc., 1919, Vol. clviii, p. 95.

PATHOLOGY.

The hemorrhage may be either supratentorial, infratentorial, or in the spinal canal or cord. Pierson[3] reported one hundred and forty-two breech deliveries in which eighteen natal or neonatal deaths occurred, and eighty-seven version and breech deliveries with eighteen natal or neonatal deaths. Spinal cord hemorrhage occurred in 47 per cent and intracranial hemorrhage in 44 per cent of the thirty-six deaths. Most of these were diagnosed clinically as asphyxia neonatorum. The hemorrhage, when intracranial, is subdural and usually subarachnoidal, the bleeding coming from the cortical veins. For this reason a large collection of blood is usually not found. In from a few hours to a few days, cerebral edema occurs which, if not relieved, causes increased intracranial pressure. If the child survives, the pressure subsides in from six to eight weeks and the blood is absorbed. Permanent brain injury results from the pressure and obliteration of the subarachnoid spaces due to the exudative process set up by the hemorrhage. The late results of such accidents are too often seen in the form of spastic diplegia, mental deficiency, epilepsy, and internal or external hydrocephalus, the character of the brain injury depending upon the location and amount of the hemorrhage present and the duration of the pressure to which the brain is subjected.

SYMPTOMS.

The symptoms usually appear within from 24 to 48 hours after birth. Any unusual symptoms in a newborn infant, such as a blue baby, refusal to nurse and drowsiness, difficulty in getting the child to breathe, spells of cyanosis, muscular twitchings, or convulsions, should lead one to suspect intracranial hemorrhage. In many cases there are no symptoms and the small amount of extravasated blood is absorbed, either with or without later symptoms.

TREATMENT.

If for any reason the newborn baby does not act normally, a lumbar puncture should be done. Some recommend a routine lumbar puncture but I hardly feel that this is justifiable. The bleeding time and coagulation time should be taken and if a delayed clotting time and a prolonged bleeding time is found, subcutaneous injection of blood should be given. In the obstetrical department of some clinics, the injection of 10 c. c. of the father's blood into the infant is a routine procedure.

When a lumbar puncture reveals a bloody fluid, repeated punctures should be

3. Pierson, Richard N.: Surg., Gynec. and Obstet., Vol. xxxvii, p. 802.

done every 6 to 24 hours. Further punctures should be resorted to until the fluid clears and the symptoms subside. In several of these cases I have been able to obtain but a small amount of fluid. Should the symptoms not subside after repeated lumbar punctures, surgery is indicated. In supratentorial hemorrhages or in those in which the location of the hemorrhage is not clear, a subtemporal decompression is usually the operation of choice. Of the six cases reported, four were subjected to subtemporal decompression, one recovered after repeated lumbar punctures, and one required a suboccipital exploration with the opening of the foramina of Majendie and Luschka.

CASE REPORTS.

Case No. 1.—Baby C. entered the Harris Hospital, February 15, 1924, forty-eight hours after birth. The mother, a primipara, was in labor twenty-two hours but the delivery was normal. There was some difficulty in starting respiration. The child was blue for about ten minutes but this cleared up. Thirty-three hours after birth it began to have convulsions; at first these were more on the left side but they have since become generalized. During convulsions the baby stiffened out and became blue. It would break out in perspiration and then

FIG. 1. Apparently normal baby eight months after subtemporal decompression. Case No. 1.

drop off to sleep. Convulsions occurred from fifteen minutes to four hours apart. Examination reveals a well developed, well formed baby. There were no signs of injury about the head and no demonstrable paralysis. A spinal puncture was done but no fluid was obtained. The patient was etherized and a right subtemporal decompression was done. No free blood was found but the cortex was red, edematous, and under very markedly increased tension. Convalescence was uneventful except for one light convulsion the night following the operation. The patient has had no further convulsions and is now a healthy nineteen months old baby. (Figure 1.)

Case No. 2.—Baby W. H. entered the Harris Hospital, December 15, 1924, three weeks after birth. The baby was born by a precipitate labor, coming with the second pain. A few hours after birth it began to have generalized convulsions, with a drawing of the head to one side. Several spinal punctures were done which showed blood tinged fluid. It had been having convulsions from every fifteen minutes to every two or three hours since birth. Examination revealed a well developed and well formed baby girl with no signs of injury or paralysis. The patient was etherized and a left subtemporal decompression was done. The brain was under marked tension; the cortex was red with small capillary hemorrhages. Following operation the patient had convulsions off and on for six weeks but has had none since. The decompression area was tense for

FIG. 2. Baby ten months after subtemporal decompression for intracranial hemorrhage. Case No. 2.

eight weeks after operation, after which the pressure subsided coincident with the disappearance of the convulsions. The patient now (at twenty-one months) is a well nourished and well developed baby, and walks and talks normally. (Figure 2.)

Case No. 3.—Baby B. B. was born in the Harris Hospital, July 10, 1924. It was a normal birth, the labor lasting three hours. Nothing unusual was noted during the first twenty-four hours except that the baby would not nurse. At the end of this time the baby had a convulsion. A lumbar puncture was done and very bloody cerebrospinal fluid was found. A second attempt at puncture was made, but only a few drops of dark blood could be obtained. The convulsions ceased and the child was apparently normal except that it refused to nurse properly. Refusal to nurse continued for another week, and another puncture was done, revealing bloody fluid. At this time it was noticed that the head was enlarging and that the sutures were separating. The baby began to vomit its feedings and three weeks after birth a puncture of the corpus callosum was done. This was repeated every four or five days until the child was six weeks of age. After each puncture it would cease to vomit for two or three days.

When the child was six weeks of age a suboccipital exploration was done. On exposing the vermis, cerebellar lobes and medulla the cisterna magna was found to be obliterated, the result of an old hemorrhage, with an obliteration of all the subarachnoid spaces about the lower part of the vermis, medulla and cerebellar lobes, except a small area on the left side leading to the basal cisternae. The foramina of Majendie and Luschka were obliterated. The lower margin of the vermis was punctured and the fourth ventricle, which was greatly dilated, was entered, a gush of cerebro-spinal fluid escaping. For two weeks following this operation the patient gained rapidly and the hydrocephalus disappeared. At the end of this time the hydrocephalus was again apparent and the baby began to vomit. Several punctures of the corpus callosum were done with temporary relief after each. When the baby was eleven weeks of age, the wound was again reopened and it was found that the opening which had been made in the fourth ventricle had closed. The fourth ventricle was re-entered and a rubber tube left projecting into it and sutured in place. Following this operation the patient showed very little change for a week or two and then began to develop signs of increased pressure and hydrocephalus. This condition continued with vomiting and inability to take nourishment and a gradual increase in the size of the head. The decompression area in the occipital region continued to bulge. During the last three weeks of life the patient was in a very weakened condition and was very much emaciated, with a progressive enlargement of the head. Two days before death the patient developed signs of Cheyne-Stokes respiration and paroxysmal tachycardia and died suddenly November 19, 1924, four months and eleven days after birth.

An autopsy was performed a few hours after death. A vertical incision was made extending in the cervical region up over the vertex, the occipital bone was removed in toto, and the brain was removed, including the medulla. The ventricles were very markedly distended and the brain consisted of only a shell surrounding the ventricles. The aqueduct of Sylvius was dilated sufficiently to admit one finger. The brain over the lower part of the cerebellar lobe and the vermis was mushy and edematous. The tube was still in place reaching into the fourth ventricle but was plugged with a fibrinous exudate. On exposing the cerebellum and making a pressure upon the head the fluid from the ventricles could not be pressed out through the tube, nor could the ventricles be emptied even after removal of the tube. The subarachnoid spaces were apparently intact, so that if drainage out of the fourth ventricle could have been established and maintained a successful outcome might have been expected. In the area between the lower surfaces of the occipital lobes and the upper surfaces of the cerebellar lobes there was a lemon-yellow plastic exudate along the subarachnoid spaces, showing that there was at birth an extensive extravasation. In other words, the extravasation of blood was largely in the region above and around the tentorium cerebelli and in the entire posterior fossa and fourth ventricle.

Case No. 4.—Baby W. F. was born in the Harris Hospital, December 24, 1923, a normal labor except for a prolonged first stage. It appeared to be a normal baby with no external signs of injury. Forty-eight hours after birth it began to have convulsions, left Jacksonian in type, coming every hour or two at first. About twenty-four hours after the onset of convulsions the baby went into status epilepticus. Lumbar puncture revealed bloody cerebrospinal fluid. Repeated punctures were done and after thirty-six hours convulsions ceased. It was discharged from the hospital a few days later and remained free from convulsions or other unusual symptoms for two weeks while under observation. No further report has been obtained on the condition of the baby since that time.

Case No. 5.—Baby L. T. M. was admitted to the Harris Hospital, September 9, 1924, thirty hours after birth. The mother was a primipara. After a difficult labor of six hours duration the baby was delivered with low forceps. There was some difficulty in resuscitating the baby but it finally breathed fairly well. Twelve hours after birth the relatives noticed twitchings of the muscles of the face and body and a peculiar crowing noise. During the succeeding eighteen hours the patient had repeated convulsions every one to ten minutes and became very cyanotic with each convulsion. On examination the child was found to be a well developed, full term baby boy, with forceps marks in the right frontal region and over the occiput. A lumbar puncture was attempted but no fluid was obtained. Soon after admission a right subtemporal decompression was done. The brain was very tense with a small amount of old blood in the subarachnoid space. Following operation the patient continued to have convulsions and died, eight hours later, in a convulsion. An autopsy was refused but about 10 cc. of almost pure blood was aspirated from the spinal canal after death.

Case No. 6.—Baby J. E. B. was born on July 17, 1925, in the Harris Hospital, by breech delivery; the mother was a primipara. Some difficulty was experienced in extracting the head and forceps were applied to the aftercoming head. Immediately after birth there was some difficulty in resuscitating the baby and he was limp and somewhat cyanotic. After about one-half hour breathing was apparently normal and the baby looked as if there would be no further trouble. He slept poorly and cried most of the time during the first twenty-four hours, and during the second twenty-four hours jerkings of the muscles were noticed, with generalized convulsions. The muscular twitchings and convulsions continued; the baby slept very little during the first sixty hours after birth and on July 20, a lumbar puncture was done and a small amount of bloody cerebrospinal fluid was recovered. It was then decided to do a decompression and sixty-four hours after birth a right subtemporal decompression was done under procain infiltration with a small amount of ether anesthesia. The brain was found to be under markedly increased tension at the time of operation; the cortex was red and congested but no local hemorrhage was found at the site of the operation. The twitchings diminished markedly during the first twenty-four hours following operation and then ceased. The baby ran a temperature varying from normal to 103 during the first five days following the operation, but returning to normal on the ninth day. The child left the hospital on the ninth day following operation and has been well since that time. He has gained several pounds in weight, takes nourishment well, and has had no twitchings or paralysis. At the last observation, about six weeks after birth, the baby was a healthy, robust child and apparently normal.

SUMMARY.

Of the six cases reported, three are apparently perfectly well 21, 19, and 1½ months, respectively, after the operation; one recovered following lumbar punctures, and two died, one eight hours after operation, apparently from massive hemorrhage, and the

other died after living 3 months and 11 days after operation, this death occurring from a recurrent obstruction of the foramina of Majendie and Luschka.

CONCLUSIONS.

I wish to emphasize the importance of careful observation of newborn babies for development of untoward symptoms such as respiratory difficulty, blue spells, muscular twitchings and convulsions, and refusal to nurse. Newborn babies having such symptoms should be given 10 cc. of the father's blood, subcutaneously, and a lumbar puncture done. If the cerebro-spinal fluid is blood tinged, repeated punctures should be performed. If the symptoms do not clear up under this regime a decompression operation is indicated.

OVARIAN HEMORRHAGES.*

BY

FRANK C. BEALL, M. D., F. A. C. S.,

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Hemorrhages from the ovaries are of very frequent occurrence. They may be so slight as to cause no symptoms, or so severe as to quickly snuff out the life of the unfortunate victim. Scanzoni[1], in 1863, reported the case of an 18-year-old girl who died from menstrual ovarian hemorrhage. At necropsy he found in one ovary a cyst the size of a hen's egg from a rent in which 6 pounds of blood had escaped into the abdominal cavity. (This might have been an ovarian pregnancy.) Massive hemorrhage from the ovary due to other causes may simulate ovarian pregnancy. Bovee[2] has said that without the presence of a fetus or chorionic villi, the diagnosis of ectopic pregnancy can be made only with the microscope. He reported 29 cases of supposed ectopic pregnancy with free hemorrhage from tubes or ovaries, in which microscopical evidence supported the diagnosis in only 17. Canturani[3] reported on the microscopic examination of a hundred suspected extra-uterine pregnancies, with positive findings in only 85 cases.

In my experience I have seen three cases of massive hemorrhage from the ovary; two of these simulated extra-uterine pregnancies, the third caused obstructive symptoms. I wish to report these cases briefly.

CASE REPORTS.

Case No. 1.—Mrs. J. G., a rather obese woman, aged 32, was seen June 4, 1917, complaining of severe pain in the region of the left ovary, nausea and weakness. She had been married several years, but had never been pregnant. Her menstruation had always been irregular, sometimes with as much as 40 days between the periods. The flow was slight in amount, lasted 3 or 4 days, and was accompanied by severe cramps on the first day. Her last period had started nearly 6 weeks before I saw her. Her illness had begun suddenly 24 hours before, with a severe pain low in the left side of the abdomen. She was given an opiate by mouth and the pain soon became less severe, but she began to feel weak and nauseated. She did not vomit however. The pain had recurred at intervals for 24 hours, but was never as severe as at the beginning. Her weakness, however, had become more marked and when first seen by me, she said she felt as if she were going to faint. She looked sick. She was pale and her skin was clammy and her extremities cold. Her temperature was 96.7° F. Her pulse was 120 and of small volume. Her abdomen was full, everywhere soft, and sensitive to pressure in the lower half. No masses were made out on abdominal or pelvic examination, nor could any abnormality of the pelvic organs be detected. She was operated upon immediately, with a probable diagnosis of ruptured tubal pregnancy. In her pelvis and lower abdomen was found a very large amount of blood: the clots extending above the level of the navel. The uterus and tubes appeared normal though there were many adhesions about the pelvic structures. The right ovary appeared normal. The left ovary, however, contained a cyst about 3 centimeters in diameter, which was ruptured and filled by a protruding blood clot. From the tear in the cyst wall slight bleeding was still going on. This ovary was removed and examined microscopically. The pathologist reported he could find no evidence of pregnancy.

Case No. 2.—Mrs. W. A. D., a stout woman, aged 35, had been married 5 years but had never been pregnant. Her menstruation had always been regular, normal in amount and associated with pain, particularly in the right ovarian region and this had been worse for the last two or three years. Her appendix had been removed 4 years before. Her illness had started 8 days before, toward the end of a menstrual period, with severe pain in the lower part of the abdomen, nausea and vomiting. The pains, which were crampy in character, had continued with slight remissions since, as had the nausea and vomiting. Both, however, were not so severe as at the beginning. For the first 3 days small bowel movements had been obtained with difficulty by the use of enemas. For 4 days, however, constipation had been absolute. The patient's general condition seemed good. Her temperature was 100.6° F., and her pulse 80, full and strong. Her abdomen was markedly distended, tympanitic and tender to pressure over the lower half. On pelvic examination there was felt a soft doughy mass in the cul-de-sac. The condition of the uterus, tubes and ovaries could not be made out. A diagnosis of low intestinal obstruction was made, and the patient operated upon on June 25, 1917. The small intestines were markedly distended. The pelvic organs and pelvic loops of intestines were matted together by old dense pigmented adhesions. Encysted deep in the cul-de-sac, contiguous to the right ovary, was a fresh hematoma about 12 cm. in diameter. The right ovary, evidently the source of the bleeding, contained a cyst 2.5 cm. in diameter, ruptured and filled by a protruding blood clot. This ovary was removed and the patient made a prompt and complete recovery.

Case No. 3—Mrs. R. D., rather stout, aged 35, had been married 15 years and had never been pregnant. Her menstruation had always been regular and ac-

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*Read before the Section on Gynecology and Obstetrics, State Medical Association of Texas, Austin, May 7, 1925.

1. Scanzoni: Lehrbuch der Weiblichen Sexual Orgone, 1863.
2. Bovee: Amer. Jour. Obst., Vol. lxxvii, p. 370, March, 1918.
3. Canturani: Amer. Jour. Obst., Vol. lxxix, p. 716, June, 1919.

companied by only moderate pain. She had gone over her menstruation time one week when she began to have pain low in the right side of her abdomen. The pains had continued one week when I saw her. They were intermittent, of a sharp stabbing character, of variable intensity and duration, lasting from a few minutes to several hours. The lower part of her abdomen soon became sore and this had continued. Three days after the pain started she began to have a vaginal flow which she said was not as free as her normal menstruation. There had been no nausea, and her bowels had moved with enemas. The patient did not look very sick. Her temperature was 100° F., and her pulse 88 and of good character. Her abdomen was rather full, tympanitic and tender to pressure below the umbilicus. This was most marked on the right side. Nothing abnormal could be made out on pelvic examination, except the pelvic tenderness. She was operated on February 18, 1922, with a probable diagnosis of tubal pregnancy. A considerable amount of blood, free and in clots, was found in the lower abdomen and pelvis. The appendix, tubes, uterus and left ovary were apparently normal. There were a few old adhesions about the pelvic organs. The right ovary contained a cyst about 2.5 cm. in diameter, filled by a blood clot which protruded through a tear in the cyst wall. This ovary and the appendix were removed. A microscopical examination of the ovary failed to show any evidence of pregnancy.

These cases illustrate the severe grades of ovarian hemorrhages. In such cases, unless care is taken and a careful histologic study of the ovary made, an erroneous diagnosis of ovarian pregnancy might be arrived at. Sometimes such a diagnosis might be a grave injustice to the patient. The subject of massive ovarian hemorrhages has been reviewed by Novak[4] and Smith[5]. Smaller hemorrhages, which are common, produce milder symptoms. They are, I think, sometimes the cause of slight vague pains, complained of by women, in the region of the ovaries. Sometimes, too, these smaller ovarian hemorrhages are associated with symptoms of peritoneal irritation. In addition to the pain, there may be nausea, local tenderness and perhaps slight fever. In these cases the diagnosis of salpingitis or appendicitis may erroneously be made. Insofar as I know all hemorrhages from the ovary are associated with hemorrhagic cysts or hematomas of the ovary.

The pathology of ovarian hematomas has been the subject of much speculation and theorizing. Scanzoni[6] believed the bleeding was due to a functional error, an excess of bleeding from mature graafian follicles without demonstrable pathologic changes in the tissues. Wolf[7] described three types of ovarian bleeding; interstitial, follicular and intrafollicular. Savage[8] divided the sites of these hemorrhages into those of the graafian follicle and those of the corpus luteum.

Schumann[9] believed that, when massive hemorrhage from the ovaries takes place, there is always to be found some disease of the ovarian blood vessels. In 1921 Sampson[10] reported his studies of perforating hemorrhagic cysts of the ovary, describing a type of ovarian hematoma where the cyst wall was lined by structures histologically identical with the mucous membrane which lines the uterus.

Russell[11], in 1899, reported the finding of menstruating endometrium in the ovary. He explained it as a probable metaplasia, arguing that, since embryologically uterine epithelium and ovarian germinal epithelium arise from a common source, it is reasonable to suppose that occasionally an exchange of function could take place. Since that time the occurrence of endometrial structures has been reported from many sources. Occurring in the ovaries it has been regarded as a metaplasia of the germinal epithelium (Russel[11], Meigs[12]), as an embryonic inclusion of endometrial anlages (Blair[13]), and as a direct implanation of mature endometrial tissue, finding its way out through the fallopian tubes and growing on and into the ovary (Sampson[10]).

Sampson[10, 14] has shown that many, perhaps the vast majority, of ovarian hematomas are hemorrhagic cysts, the walls of which are lined by tissue identical in every respect with that which lines the uterine cavity; a single layer of columnar or cuboidal cells with an underlying vascular stroma in which are found glandlike structures lined by similar epithelium. His theory is that "tubal and uterine epithelial cells may, under certain circumstances (as an abnormal menstruation with backflow) be expelled from the fimbriated end of the tube and lodge on the surface of the ovary. They may become embedded in the tissues of the ovary and, true to their type, form glands and tubules which may actually invade the ovary * * * Some of these glands and tubules which have invaded the ovary react to menstruation and develop into hematomas of endometrial type." Sampson has offered some very convincing evidence in support of his theory and Jacobson[15] has shown experimentally that in animals, endometrium transplanted to the surface of the ovary can grow and develop cysts lined by endometrial tissue.

4. Novak: Jour. A. M. A., Vol. lxviii, p. 1160, April 21, 1917.
5. Smith: Amer. Jour. Obst. and Gynec., Vol. i, p. 240, December, 1920.
6. Scanzoni: Lehrbuch der Weiblichen, Sexual Orgone, 1863.
7. Wolf: Arch f. Gunak., Vol. lxxxiv, p. 211, 1908.
8. Savage: Jour. Obst. and Gynec., Brit. Emp., Vol. xviii, p. 293, 1910.
9. Schumann: Jour. A. M. A., Vol. lxxvii, p. 692, August 27. 1921.
10. Sampson: Arch. Surg., Vol. iii, p. 236, September, 1921.
11. Russell: Bull., J. H. Hosp., Vol. x, p. 8, October, 1899.
12. Meigs: Boston M. & S. J., Vol. cxxxvii, No. 1.
13. Blair: Surg. Gynec. and Obst., Vol. xxxv, p. 379, September, 1923.
14. Sampson: Arch. Surg., Vol. v, p. 217, September, 1922.
15. Jacobson: Arch. Surg., Vol. v, p. 281, September, 1922.

Sampson summarizes the clinical features of endometrial hematomas as follows: Nearly all occur from the age of 30 to the menopause. They are most likely to occur in women who are sterile or those with a period of sterility after bearing children. They occur rarely, if at all, in women who have had salpingitis. They are frequently associated with myomas of the uterus and with retroversion and retroflexion of the uterus. They are usually small, from 2 to 4 centimeters in diameter. The largest observed by him was 9 centimeters in diameter. Subjective symptoms are due principally to adhesions. There may be dysmenorrhea of an acquired type. Other pains are not characteristic. There may be constipation, which is worse during menstruation. One patient had an acute onset with symptoms of peritonitis; four patients were greatly troubled with constipation, in one amounting to partial obstruction. Physical signs are lacking, or there may be a nodular or diffuse thickening of the floor of the cul-de-sac, or adhesions of the ovaries or uterus to other pelvic structures.

The reaction of these endrometrical cysts to menstruation is very interesting. Not only does the lining of these cyst walls resemble endometrium histologically, but functionally as well. There is a menstrual discharge similar to that which occurs in the uterus. The accumulation of menstrual blood in the cyst leads to its taking on the appearance of a hematoma. Casler[16] reported a case in which after a complete hysterectomy a woman menstruated regularly through the vaginal vault from the left ovary, which had been left in situ. After 4 years this ovary was removed and was found to contain a hemorrhagic cavity lined by tissue which, histologically, was typical endometrium. Recently, Winestine[17] reported a hemorrhagic cyst of the ovary the size of a goose egg, which was removed during pregnancy and found to contain a large amount of typical decidual tissue. Similar decidual reactions have been reported in extrauterine adenomyomas which Sampson thinks originate often from endometrial cysts of the ovary at the time of rupture.

Sampson, who has made the most exhaustive studies on the subject of ovarian hematomas of endometrial type, does not mention the possibility of massive hemorrhage occurring from their rupture. The cases I have reported occurred before I was familiar with Sampson's work and the pathologist who examined the ovaries was interested only in determining whether or not they were cases of ovarian pregnancy, consequently a detailed description of them was not made. From their resemblance to endometrial cysts which I have since seen, particularly with regard to the sclerotic, puckered, peculiarly pigmented superficial part of the cyst wall, and the presence of old adhesions in the pelvis, with no evidence of previous inflammatory trouble, I am inclined to think these were of this type. As so often happens when a new observation is made, old theories are upset and accepted ideas rendered chaotic, so do I think Sampson's studies on ovarian hematomas of endometrial type have unbalanced our conception of ovarian hematomas in general. He has described ovarian hematomas in which the underlying stroma was scant and the epithelial cells much compressed and flattened so that the whole structure might resemble a simple follicular cyst with hemorrhage. In other instances invading leucocytes, colored by the pigment they had picked up in the cyst wall, were so arranged as to resemble very closely the lutein cell of a corpus luteum. It is not only possible but highly probable that many ovarian hematomas studied by the older writers were of endometrial type and were erroneously classified as follicular and corpus luteum cysts. The subject needs to be restudied in the light of our newer knowledge.

16. Casler: Trans. Am. Gynec. Soc., Vol. xliv, p. 69, 1919.
17. Winestine: Arch. Surg., Vol. viii, p. 3, March, 1924.

ABSTRACT OF DISCUSSION.

Dr. Willard R. Cooke, Galveston: We have had three cases of hemorrhage from the ovary sufficient to produce symptoms requiring laparotomy. One of these came from a papilliferous cystadenoma which had ruptured, the rent passing across a vein. The other two cases were apparently corpus luteum or lutein cysts of the ovary. In both of these the symptoms were strongly suggestive of extra-uterine pregnancy, there having been delayed menstruation and other symptoms which usually accompany that condition.

As regards chocolate cysts, or cysts arising from endometrial implantations, we have not considered them of importance from the standpoint of hemorrhage. The fluid which they produce is not pure blood, but apparently a secretion of the endometrium like cells mixed with blood; in other words, a sort of menstrual fluid. This fluid is very irritating and in those cases in which the epithelium is exposed or in which the cysts rupture, this fluid causes a very severe inflammatory reaction of the peritoneum with the formation of dense adhesions; and it is from this condition that the symptoms arise, rather than from hemorrhage. We have seen no massive hemorrhage from this condition.

Dr. Elbert Dunlap, Dallas: The subject Dr. Beall has presented is a new one and is certainly worth while. A study of large cysts, especially the old very large ones that weighed as much as the woman, is not needed because we do not see them any more. The tissue work done on these cysts showed that 17 per cent of these old cysts were malignant; a few of them were carcinomatous. The malignancy is discovered as a rule by accident because the areas are very small. The cysts that spring from the endometrium are the ones that become enormous. A study of the specimens sent to the laboratory for examination for pregnancy, would be interesting.

The subject opens up a new field and will require a great deal of careful study.

Dr. Lucien LeDoux, New Orleans, La.: Dr. Beall's paper is most thorough and complete. I only wish that I were a pathologist at this time so as to be able to discuss it more intelligently. From the viewpoint of clinical diagnosis it would appear that the subject is more of academic interest than of practical value; yet, from the viewpoint of the pathologist it stimulates thought and study of a very broad field. The differential diagnosis is not always easy and in most cases is made at operation. Dr. Beall has added a great deal to our knowledge of cystic conditions of the ovary. I consider his paper a classical contribution.

Dr. Beall (closing): The cases referred to by Dr. Cooke were, no doubt, true corpus luteum cysts. Sampson, however, has described endometrial cysts, the walls of which had been invaded by endothelial cells which were colored by ingested blood-pigment and so arranged as to resemble strongly lutein cells. He says careful study is often necessary to distinguish such endometrial cysts from corpus luteum cysts. Dr. LeDoux said the subject was only of academic interest; because of lack of time I have not gone into the clinical side of the subject. These cysts are, however, capable of producing distressing and even disabling secondary lesions, adenomyomas of the sigmoid or other pelvic structures, and adhesions that may cause serious trouble. Contrary to what Dr. Cooke thinks, the adhesions do not result from any irritative quality of the escaping cyst fluid, but to an actual invasion of the pelvic structures by the escaping endometrial cells. It is the invasion and proliferation of these cells that make these cysts harmful. The small tumors can produce considerable harm, as shown by Sampson, who has found that 10 per cent of them come to operation on their own account. If Sampson is right in his conception of the etiology of the condition, we should be more attentive to our cases of retroversion.

MISCELLANEOUS

MANIPULATIVE (CHIROPRACTIC) DISLOCATIONS OF THE ATLAS.

Edward S. Blaine, Chicago (*Journal A. M. A.*, Oct. 31, 1925), reports on three cases of forward dislocation of the atlas on the axis; one with fracture of the odontoid process; all three were apparently the result of chiropractic treatments. One of them resulted in death, the second in constant dull pain and limitation of motion, with a material loss in efficiency of the patient, while the third appears to be progressing satisfactorily in spite of the dislocation of the atlanto-axial joint, although there is a marked reduction in the movements of the head. In all the instances detailed, the important point is the resulting compression of the spinal cord and its coverings and the efferent and afferent nerve structures of the region, as well as the associated blood vessels. In a forward dislocation of the atlas on the axis, there may also occur an interference with the free passage of blood through the vertebral arteries as they pass through the foramina in the transverse processes of the atlas. Interference with the venous flow will also occur in this injury, and the amount of obstruction due to pressure of the bony parts will depend largely on the degree of dislocation, which may be so slight as to result in no disability, as is evident in one of the cases included in this presentation. The demonstration of this lesion is best accomplished by Roentgen-ray projections of the craniocervical region, with the patient in the lateral recumbent posture. The binocular shadow visualization of the bones and joints of the region is preferable to the two dimension shadows of the single film. The patient's head should be so placed that its sagittal plane is parallel to the plane of the Roentgen-ray film, thus bringing it in direct alignment with the long axis of the spine, the weight of the body resting on the lateral aspect of the nether shoulder. This can be accomplished by use of a hard pillow or block of suitable thickness on which the film casette is laid. An anteroposterior projection is also of value in the determination of this lesion, particularly for demonstration of lateral displacement of the involved bones. He points out that so long as the laws governing the health of the individual permit such methods as the chiropractic system to be practiced and thus fail to protect an unsuspecting public, just so long will occurrences such as are detailed in this presentation take place. Another case in point that received considerable newspaper notice in the Chicago papers in February, 1923, may be cited. A girl, aged 11, with a tuberculous caries of an upper cervical vertebra was taken to a chiropractic school by her parents; there the students gave her "spinal adjustments" that resulted in a cord injury due to collapse of the diseased bone. Her death followed immediately after this unintelligent, nonscientific and essentially criminal manipulation. As this was being written, an additional case came to the author's mind. It concerns a child, aged 5, who had bronchial pneumonia. The chiropractor to whom she was taken placed the child face downward on two tables separated about eight inches and began manipulating the child's spine; when he came to the portion unsupported by the two tables (he is said to have used great force), the child cried out with pain and died. At the coroner's inquest, it was found that death resulted from the chiropractor's treatment.

NOTICE OF EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE.

Announcement has been made by Surgeon General Cumming, that on March 15, 1926, the United States Public Health Service will conduct examinations of candidates for entrance into the Regular Corps of the U. S. Public Health Service. These examinations will be held at Washington, D. C., Chicago, Illinois, New Orleans, Louisiana, and San Francisco, California.

Applicants must pass satisfactorily, oral, written, and clinical tests before a board of medical officers and must be examined physically. They must have been graduated in medicine from some reputable medical college, have had one year's hospital experience or two years' professional practice, and must be not less than twenty-three nor more than thirty-two years of age.

Candidates who successfully pass the requirements will be recommended for appointment by the President with the advice and consent of the Senate in the Regular Corps of the Public Health Service.

Requests for information or permission to take this examination should be addressed to the Surgeon General, United States Public Service, Washington, D. C.

CANCER MORTALITY IN THE TEN ORIGINAL REGISTRATION STATES.

A critical analysis was made by J. W. Schereschewsky, Boston (*Journal A. M. A.*, Oct. 17, 1925), of the course of the cancer mortality in the ten original registration states, *i. e.*, Connecticut, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Rhode Island and Ver-

mont. This area was chosen because it is the only one available in this country for continuous study over the selected period of twenty-one years, as the other states now forming the registration area were added from time to time to the original ten. Three facts stand out prominently: (1) There has been a pronounced increase in the observed death rate from cancer in persons 40 years and over in that part of the United States known as the ten original registration states. (2) Part of this increase (about 30 per cent) is due to greater precision and accuracy in the filling out of death returns. (3) The remainder; however, is an actual increase in the mortality resulting in a death rate between 25 and 30 per cent higher than it was twenty-one years ago.

THE E. R. A. HAZARD.

Some minds are impregnable to scientific evidence. Among their unfortunate possessors are those who believe that the "Electronic Reactions of Abrams" have some basis in fact. To argue with such persons is hopeless. All attempts on the part of the medical profession to enlighten them are rendered abortive by the preconceived belief that scientific medicine is hidebound and will not see the light. Minds of this kind, however, are more open to the practical facts of business. They will sit up and take notice when a business man tells them that his experience is thus and so. To these individuals we would commend a circular recently sent out by an insurance company that specializes in insuring professional men and women against professional loss. The special feature of this insurance company is protection of those who practice the healing art against malpractice suits. The company has two premium rates, one covering physicians and one covering those who employ the Abrams fakery. They are known respectively as "General Premium Rates" and "E. R. A. Premium Rates." The premium charge for a physician indemnifying him for $5,000 a year is $12.50. The premium charge for the Abrams disciple, indemnifying him for the same amount, is $50!—*Jour. A. M. A.*, Oct. 24, 1925.

REPORTING OF MATERNAL DEATHS.

Two laudable and interdependent movements—the reduction of maternal mortality, and its corollary, universal, conscientious reporting of the causes of death in childbirth—continue to attract the attention of sociologists, economists, physicians and public health workers generally. In 1924, the maternal mortality per hundred thousand white mothers between the ages of 15 and 44 years was 59.1. More than one-third of these, 22.5, died of puerperal septicemia. Annually during the last ten years, Great Britain has lost 3,000 of the 700,000 women who gave birth. "Figures vary, as regulations regarding notification of puerperal sepsis are not properly observed." Hospital studies and hospital technic have done nearly all that they can. Still the four highest maternal death rates reported in a recent study are: Cook County Hospital, Chicago, 3.6 per cent; Bellevue and Associated Hospitals, New York, 2.5 per cent; Jefferson Hospital, Philadelphia, 2.3 per cent; Boston Lying-In Hospital, 2.2 per cent. The laboratory has made known the causative organisms and the pathology; little more can be looked for in this direction. Treatment, universally found inadequate and finally focused on the hope offered by intravenous therapy, has not found the dyes invariably successful. Blood transfusion is offered in the hope that it may enhance natural processes. No physician likes to report a puerperal death, least of all a death from puerperal septicemia. The facts that in one case he was called at the last minute and sterility was impossible, and that retrospect of another case discloses to him no break in his technic, infection occurring in spite of his care, are likely to be overlooked by others. Still, the courage that has always activated scientific medicine should not fail in this instance. Accurate reporting and study of cases may be the stimulus whereby hundreds of "mothers in the heyday of their lives," who leave behind them thousands of motherless children, may be saved to their families and to the world.—*Jour. A. M. A.*, Feb. 6, 1926.

MEDICAL BOARD TO STUDY EFFECTS OF WARFARE GASES.

At the request of the American Legion and other agencies, General Frank T. Hines, director of the U. S. Veterans Bureau, upon the recommendation of Dr. Crossman, Medical Director, has appointed a Board of Medical Officers to conduct an investigation and make an intensive study of the residual effects of warfare gases. The members of this Board are: Dr. A. K. Krause, member of the Group on Investigation and Research of the Medical Council of the United States Veterans' Bureau and Associate Professor of Medicine at Johns Hopkins' University; Lieutenant Colonel Harry L. Gilchrist, M. C., U. S. A., Chief of Research Division, Chemical Warfare Service, United States Army, and Dr. Philip B. Matz, Chief, Medical Research Subdivision, United States Veterans' Bureau.

This Board held its first meeting March 9, 1926, at the U. S. Veterans' Bureau and it was decided to begin the investigation at once. This will necessitate the study of the present status of some 70,000 men who were gas casualties during the World War, and will extend over a period of 12 to 18 months. Outside of the knowledge obtained from experimental work on animals, very little is known about the remote effects of the various war gasses on the body economy. This investigation is purely a scientific one, the findings of which will be not only of clinical value to the ex-service men and the Veterans' Bureau, but is being looked forward to with a great deal of interest by some of the other governmental departments.

PROGRESS OF STATE SOCIETY JOURNALS.

In 1913, at the suggestion of the editors of several state medical journals, the work of the coöperative advertising bureau was begun. The cost of operating medical periodicals was proving almost prohibitive in some states. Others, in order to avoid financial loss, were being forced to accept advertising from the makers of doubtful preparations. At that time, many of the state journals were poorly printed on poor paper. Some were small, some large. A collection of them displayed not even the two-by-two uniformity of the passengers in Noah's Ark. It seemed to these editors that a central advertising bureau, located at the headquarters of the American Medical Association, could obtain advertising business not for one but for many journals. In this way, soliciting expense would be spared to the journals and greater circulation obtained for the advertisers. Furthermore, the close association of such a bureau with the Council on Pharmacy and Chemistry would result in printing only the advertising of manufacturers of ethical products, rather than that of any applicant who could pay for space. This year virtually marks the completion of the program set in operation in 1913. Thirty state journals are now members of the coöperative advertising bureau. Only one is not a member of it. These thirty journals are now appearing with a uniform six by nine inch type size of page. Many of them, with the current year, are adopting more attractive covers.

All are being printed on good paper. One can turn the pages of almost all of them and never see an advertisement of which an ethical journal would be ashamed. They are solvent and unafraid. The efforts of the state societies, editors and managers since 1913 have had much to do with bringing about this better state of affairs. At the same time, a great deal of credit belongs to those who conceived the idea of the coöperative advertising bureau and to those who have directed its activities, whereby more and better business has been obtained at half the cost of the same volume of advertising if it were obtained through individual solicitors.—*Jour. A. M. A.*, Feb. 13, 1926.

FIFTEEN GREATEST PHYSICIANS OF ALL TIME.

The fifteen greatest physicians of all time are named by *Hygeia*, popular health magazine published by the American Medical Association, in its March issue. The names are taken from a list recently made by medical historians in an effort to name the five greatest contributors to the advancement of medicine.

Some of these men are not really physicians, in the sense that they have practiced medicine or have obtained a medical degree. Their contributions are in fields closely related to medicine. *Hygeia's* list is as follows:

1. Hippocrates, father of modern medicine, whose school and writings formulated our knowledge of medicine.
2. Galen, who described the action of the heart valves, elevated the status of the medical profession and collected the knowledge of his time in a system of medicine which was followed by physicians for centuries.
3. Leonardo da Vinci, artist and inventor, who contributed greatly to the science of anatomy.
4. Vesalius, father of modern anatomy.
5. William Harvey, representative of the renaissance of medicine, who first described scientifically the circulation of the blood.
6. Sydenham, greatest figure in medicine of seventeenth century, who wrote excellent descriptions of several disease conditions.
7. John Hunter, father of surgery.
8. Auenbrugger, who first described the method of tapping the chest for the determination of conditions beneath the skin.
9. Laennec, who first described use of the stethoscope for listening to sounds within the chest.
10. Pasteur, father of the conception of bacteria as the direct cause of many diseases.
11. Robert Koch, discoverer of the tubercle bacillus, who established bacteriology as a science.
12. Lister, who showed how bacterial infection may be prevented.

13, 14 and 15. James Young Simpson, William Morton and Crawford Long, who first made use of anesthetics and made surgery painless.

Photographs and biographical notes of these fifteen great men will appear in succeeding numbers of *Hygeia*.

CHIROPRACTIC NOT HARMLESS.

A decision by the Supreme Court of Illinois relating to chiropractic has brought out a new answer to the claims of chiropractors and practitioners of similar methods. The defendants in the case argued that practice of chiropractic was "a useful and harmless calling which cannot be regulated by the state." This claim was declared to be so entirely without merit that any discussion of it was unnecessary. The decision went on to state, however, that "if a chiropractor can, by manipulation, move a dislocated vertebra so that the pressure on a nerve can be relieved and paralysis cured, he can by the same process dislocate a vertebra and cause a paralyzed condition. Any method of treating human ailments which, when practiced skilfully, can restore a diseased human body to health is capable of doing great harm when practiced without care or skill. A method of treating human ailments cannot be both useful and harmless. If it is sufficiently efficacious to be useful, it is at the same time capable of producing harmful results." The chiropractor, no less than the physician or any one else who is to treat the sick, needs to have a sufficient training in the fundamentals of medicine so that he will know at least when his manipulation may be harmful.—*Jour. A. M. A*, Feb. 13, 1926.

HEREDITY AND OBESITY.

The statement, frequently encountered, that obesity is merely the expression of an excess of intake of food over the bodily expenditures, is far from satisfactory to a critical student of the subject. There are at least a few obese persons who are fairly active in their habits and frugal in their diets; these, Du Bois remarks, furnish us with the true problem of obesity. A question that obviously presents itself in this connection concerns the basal metabolism of the aberrant types. Do they differ from the normal by carrying out their fundamental exchange of energy more economically? This has been a question not easily answered, because of the difficulties of making tenable comparisons between the different persons concerned.

The obese carry a considerable amount of inactive adipose tissue in their bodies. Consequently, if the metabolism per unit of weight were used as a standard of comparison, the fat person would exhibit a low metabolism. Other modes of comparison also have inherent fallacies. However, when critical regard is directed to these circumstances it appears to be now firmly established that the basal metabolism in obesity is normal—not unduly lowered. The course of the metabolism of plethora, in contrast with the basal exchange, may be somewhat different. It has already been pointed out in *The Journal* that, according to Strouse and his collaborators in Chicago, the obese conserve the body fat and thus accumulate more, whereas normal and thin persons use up their food fat instead of storing it. Assuming a peculiarity of metabolism of such a sort, one naturally inquires whether adiposity of the ordinary form is inherited.

Most physiologists are disinclined to admit any hereditary factor in obesity. They insist, with Tileston, for example, on attributing the large incidence of obesity in certain races entirely to their manner of life. This view has been criticized by Davenport. In a statistical inquiry among a large group of families, it appeared that both constitutional and cultural factors play a part in determining abnormalities of build. The constitutional factors may be regarded as not less important in determining the result than the cultural factors. According to Davenport there are at least three biotypes (or elementary species) of human beings in the population of this country characterized by special conditions of build. There is a slender, a medium, and at least one fleshy biotype. In some families there is only one factor, and in others there are two or more factors involved in build. In some cases these idiosyncrasies of build may be due to endocrine idiosyncrasies; in other cases, perhaps, to more general peculiarities of metabolism. These are rather indefinite generalizations on a subject, obesity, that is perhaps discussed by the laity and public press more frequently than any other

nutritional disorder. As Du Bois has significantly remarked, the large amount of public interest is in marked contrast to the small amount of scientific information. We do not yet know, he adds, why certain persons grow fat.—*Jour. A. M. A.*, Feb. 20, 1926.

PREDICTING SEX OF BABIES.

A young mother is more apt to give birth to a boy baby, and a mother forty years old or over more frequently gives birth to a girl. So concludes an English physician after studying the records of some 8,000 births in Manchester. An account of his studies is given in *Hygeia*, popular health magazine published by the American Medical Association.

The proportions are not so predominant, says *Hygeia*, as to warrant any one laying a wager of any considerable sum on the chance; in fact the odds for mothers around 20 years of age would be 1.2 to 1 that the child will be a boy and for mothers about 40 years of age 0.9 to 1 that it will be a boy.

"Actually our scientific knowledge of the predetermination of sex," concludes the magazine, "indicates that the female exercises no influence on the sex of the offspring since the female eggs are all alike. The male forms germ cells of two kinds, in one of which male elements predominate, and in the other female elements. At the time the female egg is fertilized, the decision as to sex is made.

"This leaves the parent who is anxious to exercise some influence in the matter rather at a loss; there seems to be nothing she can do to affect the decision!"

PHYSICIANS IN CONGRESS.

The Congress of the United States is made up of ninety-six Senators and 435 members of the House of Representatives. About two-thirds of these congressmen are lawyers or have had legal training. The remainder are mostly business men, farmers and publishers, with a sprinkling of educators and engineers. Only six are physicians, five of whom are members of the House. There are three dentists, two of whom are in the House. In previous Congresses the number of physicians has been slightly greater, though the profession has never been well represented at the Capitol. The only physician in the Senate is Royal S. Copeland, democrat, New York, who was health commissioner of New York City. He has served as vice-president of the American Public Health Association. The dentist in the Senate is Henrik Shipstead, Farmer-Labor, Minnesota. Two other Senators, Woodbridge N. Ferris, democrat, Michigan, and George H. Moses, republican, New Hampshire, studied medicine for brief periods. Three of the physicians in the House are republicans and two are democrats. Three were in active practice when elected, while one was engaged in farming; the other, who is also a lawyer, was specializing in legal medicine and the practice of law. Dr. E. M. Irwin, republican, Belleville, Ill., graduated from Missouri Medical College of St. Louis and practiced from 1892 until elected to the Sixty-Ninth Congress. Dr. Ladislas Lazaro, democrat, Washington, La., has been a member of the last seven Congresses. He was educated at Holy Cross College, New Orleans, and graduated in medicine in 1894, having been in active practice until 1913. Dr. John J. Kindred, democrat, Astoria, N. Y., studied medicine at the University of Virginia and Hospital College of Medicine of Louisville, Ky., from which he took his M. D. degree in 1889. He is also a law graduate and has lectured on medical jurisprudence and is especially interested in mental disease. He served in the Sixty-Second Congress and from the Sixty-Seventh to date. Dr. William T. Fitzgerald, republican, Greenville, Ohio, graduated from Wooster University Medical School and practiced until elected to the Sixty-Ninth Congress. Dr. John W. Summers, republican, Walla Walla, Wash., engaged in the practice of medicine for twenty-five years after graduating from the Kentucky School of Medicine and the Louisville Medical College. He has been in Congress since the Sixty-Seventh Congress. The two dentists in the House are Dr. Roy O. Woodruff, republican, Bay City, Mich., and Dr. Frank Crowther, republican, Schenectady, N. Y. Both have served in a number of Congresses. Although these physicians and dentists are the only representatives of their professions in Congress, the biographic sketches of some other members, as given in the Congressional Directory, reveal an interest in public health and medical matters. Thus, Mr. Robert G. Houston, a lawyer, republican, Delaware, was a member of the first state antituberculosis commission and is now vice chairman of the commission for the feebleminded, while Representatives Louis A. Frothingham, Massachusetts, Ernest R. Ackerman, New Jersey, and John M. Morin, Pennsylvania, are trustees of various hospitals.—*Jour. A. M. A.*, Feb. 13, 1926.

UNITED STATES CIVIL SERVICE EXAMINATIONS.

The United States Civil Service Commission announces the following open competitive examinations:

Occupational Therapy Aide, $1,680.

Occupational Therapy Pupil Aide, $1,140.

Applications for these positions will be rated as received until June 30, 1926. The examinations are to fill vacancies in the Veterans' Bureau throughout the United States.

The entrance salaries are shown above. After the probational period of six months required by the civil service act and rules, advancement in pay may be made without change in assignment up to $2,040 a year for occupational therapy aide, and up to $1,500 a year for occupational therapy pupil aide. Promotion from the lower to the higher grade may be made in accordance with the civil service rules as vacancies occur.

The duties of occupational therapy aides consist of giving instruction in the arts and crafts or in any one or more of the academic or commercial subjects considered under the subject of occupational therapy, keeping a daily record of the work and progress of each and every patient coming under direction and instruction, and making the required reports of the activities of the reconstruction work in occupational therapy.

The duties of occupational therapy pupil aides are to perform the work outlined above, under the supervision and instruction of the chief aide.

Competitors will not be required to report for examination at any place, but will be rated on their physical ability, and education, training, and experience.

Medical Officers.

Applications for medical officer positions will be received until June 30. The examinations are to fill vacancies in the Indian Service, the Public Health Service, the Coast and Geodetic Survey, the Panama Canal Service, the Veterans' Bureau, and other branches.

The examinations are of five grades: Junior medical officer, assistant medical officer, associate medical officer, medical officer, and senior medical officer.

For the Departmental Service at Washington, the entrance salaries range from $1,860 a year for the junior grade to $5,200 a year for the senior grade.

Juniors may be promoted to $2,400 and seniors may be promoted to $6,000 after the six months' period of probation. Higher-salaried positions may be filled through promotion in accordance with the civil service rules. Promotion from grade to grade may also be made in accordance with the civil service rules as vacancies occur. For field branches the salaries are approximately the same except that deductions are made where quarters and subsistence are furnished and where part-time duty, only, is required.

Eligibles are needed who are qualified in general medicine and surgery. There is especial need for eligibles qualified in the various specialties. Practically any specialty may be named by the applicant.

Competitors will not be required to report for examination at any place, but will be rated on their education and training weighted at 30 per cent, and their experience weighted at 70 per cent. On account of the needs of the service, papers will be rated currently as they are received and certifications will be made as the needs of the service require.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the Board of U. S. Civil Service Examiners at the post office or customs house, any city.

UNITED STATES CIVIL SERVICE EXAMINATON.

The United States Civil Service Commission announces the following open competitive examination:

DIETITIAN.

Application for dietitian will be rated as received until June 30, 1926. The examination is to fill vacancies under the Public Health Service and the Veterans' Bureau throughout the United States.

In the Public Health Service the entrance salary has been tentatively established at $1,020 a year, with quarters, subsistence, and laundry. Advancement in pay may be made without change in assignment up to $1,800 a year, with quarters, subsistence, and laundry.

In the Veterans' Bureau the entrance salary is $1,680 a year. Advancement in pay may be made without change in assessment up to $2,500 a year. In this bureau when quarters, subsistence, and laundry are available, a deduction of $600 a year will be made to cover same.

The duties are to purchase the food supplies for all messes operated in the hospital; to plan all menus, both for patients on ordinary diets and diets with reference to special diseases; and to supervise the preparation and serving of all dietaries in the hospital, both to patients and personnel.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the Board of U. S. Civil Service Examiners at the post-office or customhouse, any city.

HOUSTON, THE FASTEST GROWING CITY IN THE SOUTH.

Shortly after the battle of San Jacinto in April, 1836, the city of Houston was founded by the Allen family, and named in honor of General Sam Houston, the liberator of Texas. The first Congress of the Republic of Texas designated the young town of Harrisburg as the Capital of the new nation. The site selected for the city was the south bank of Buffalo Bayou, six miles north of Harrisburg, which at that time boasted of being at the head of navigation. The spirit of Houstonians was exemplified at this early date by their determination to make the sluggish stream upon which the little town was situated navigable by removing the many obstructions in the channel, thus depriving Harrisburg of its former distinction of being at the head of navigation of Buffalo Bayou.

Although Caronkaway Indians are reputed to have navigated what is now the Houston Ship Channel with their frail canoes, the principal interest in Houston as a port probably centers around July, 1837, when the steamboat Laura negotiated the treacherous strip of brackish, debris-laden bayou stretching between Harrisburg and Houston. The new city very quickly became a distributing point

NIELS-ESPERSON BUILDING.

not only for the Republic of Texas, but for the entire Southwest. Goods were brought to Houston by boat and shipped interior by ox team.

The first Texas railroad was operated from Houston in 1850, and it has been an important railroad center ever since. Today, seventeen railroads connect this thriving southern metropolis with the great markets of the nation.

Perhaps the first real attempt to make navigable the channel from the Gulf was in October, 1866, when the Houston Direct Navigation Company was chartered. Houston was made a Port of Delivery by an act of Congress on July 4, 1870, and the first survey of the channel was made by a federal engineer in 1871. By 1873 the Houston Direct Navigation Company had six steamboats, forty barges and five tugs engaged in the channel service. Two years later, Charles Morgan became interested in the project and cut a channel across Morgan's Point, providing a more direct route to Galveston Bay. He also had wharves and warehouses constructed at

Clinton, which was soon afterwards connected with Houston by a railroad built by the Texas Transportation Company. At this time only shallow draught vessels were used, as the channel was but twelve feet deep.

Visions of Houston becoming a port for ocean-going vessels began to take definite form when in 1901 two of the city's farsighted citizens, Captain J. C. Hutcheson and Colonel Thomas H. Ball, began besieging the United States Government at Washington for federal aid in rendering Buffalo Bayou navigable to Houston. Their contentions were not seriously considered at Washington until some 90,000 Houston citizens offered to match the Federal Government dollar for dollar on the ship channel project. The usual investigating body was appointed to survey the tortuous and sluggish water-way. Months of anxious waiting passed and fears began to be entertained that an unfavorable report might be made. These fears were finally dispelled by the publication of the report in which it was stated that the project was sound, and in 1902 the Federal Government appropriated for the Buffalo Bayou Project $367,000 to start dredging. Shortly afterward, a million dollars was added to the initial appropriation, and a little later it was agreed that the total cost of the channel work would be limited to $4,000,000. But those whose vision had made possible these beginnings were not yet satisfied and it was proposed that the channel be deepened to a minimum of 25 feet. An

SECTION OF TURNING BASIN, HOUSTON SHIP CHANNEL.

act of the State Legislature in 1909 created the Harris County Navigation District. The Federal Government, between 1912 and 1915, widened and deepened the channel so that it was of a uniform depth of 25 feet, and by 1925 had dredged the entire channel to a depth of 30 feet. The total cost of the Houston Ship Channel up to June 30, 1925, amounted to $11,014,208.94, of which over two and one-half million was contributed by citizens of Harris County. In addition to this the City of Houston and the Harris County Houston Ship Channel Navigation District have spent approximately $6,000,000 on terminal facilities, such as wharves, railroads, machinery, etc. A large grain elevator will be completed in 1926 at a cost of approximately $1,100,000.

Houston has been called the city that fooled geographers, because from an inland city it has been transformed into the greatest cotton export city in the world. Its eleven huge compresses, one of which is the largest in the world, compressed 1,191,985 bales of cotton last year, and 1,821,826 bales were shipped to Europe. In the past ten months 972 ocean-going steamships have docked at Houston.

Houston has also been called "The City Where Seventeen Railroads Touch the Sea and Flags of Nations Meet." One of these seventeen railroads, the Southern Pacific, maintains its general offices in Houston and employs 6,000 people in the city, who receive salaries totaling $9,000,000 a year. This road is now building a $1,000,000 freight depot and has completed docks on the channel costing more than $1,000,000, and repair shops and yards at a cost of $1,000,000 more. Ninety-four passenger trains pass through the depots of Houston daily.

But Houston is not only a deep-water port and railroad center, but a great industrial center whose

KODAK CANOE CLUB.

varied industries have attracted thousands of new citizens and millions of dollars of capital. There are forty-five industries located on the Channel below the Turning Basis, while from that point to Main street there are twenty-two, making a total of sixty-seven, valued at $112,000,000, with a daily payroll of $35,000. Eight hundred tons of ice are manufactured daily in the city and eight thousand gallons of ice cream.

The street cars and busses of the city transported 3,300,000 people during the past month.

The postal receipts for Houston in the past ten months placed it as forty-first among the cities of the United States.

Houston's assessed property value is $222,114,389, which is probably about one-third of the real value of the property assessed.

OCEAN LINER STEAMING UP HOUSTON SHIP CHANNEL.
The view shows part of San Jacinto battle ground.

Houston has thirteen oil refineries, and within a radius of one hundred miles are nine oil fields with an annual production of 50,000,000 barrels.

Not only is Houston a great commercial center, but she is also a center of education and culture. $15,000,000 are invested in public schools with an enrollment of 34,000. One of the leading universities of the South is located at Houston, Rice Institute, with its 300 acres of beautiful campus, its magnificent buildings and its large endowment of $14,000,000. The present enrollment of this institute is 1,100 and there are sixty members on the faculty. University courses are offered in liberal arts, pure and applied science, architecture and engineering, and postgraduate work in mathematics, physiology, chemistry and biology.

The Houston City Library, recently completed at a cost of $1,000,000, is said to be one of the finest library buildings in America. 40,000 citizens have cards to this library so that Houstonians may lay claim to being lovers of literature. A splendid art museum has also been recently completed and now houses some of the finest works of art in the country. At a two-week's art exhibit there a short time ago, $60,000 worth of pictures were sold.

The City Auditorium, owned and operated by the municipal government, was recently remodeled and redecorated at a cost of $700,000. Among other improvements was the installation of a loud speaker system. This auditorium has a seating capacity of 5,000 and a number of small rooms available for conferences. It is located in the heart of the city, within a short distance of all the principal hotels.

Houston is a city of large and imposing churches, some of the largest churches in the South being located in her midst, "sermons in stone."

The parks of Houston cover 2,299 acres and are so situated that one or more are accessible to every residential section. Most of these parks have modern playgrounds equipment. At Hermann Park there is an excellent public golf course and a zoölogical garden.

The water supply of Houston is furnished by fifty-one deep artesian wells, the water from which is so pure as to require no treatment. Careful

LOOKING DOWN MAIN STREET, HOUSTON.

bacteriological tests of this water are made at regular intervals.

Houston is fast becoming one of the great medical centers of the South. There are eight hospitals in the city; St. Joseph's is the largest of these hospitals, the next in size being the Baptist Hospital. Besides these are the Methodist, the Jefferson Davis, the Southern Pacific, the Turner Urological, and the Houston Eye, Ear, Nose and Throat Hospital. The new Hermann Hospital has been built at a cost of one and a quarter million dollars, with five million more to spend. When this hospital is completed, it will be one of the finest in America.

The hotels of Houston can furnish service unsurpassed anywhere. There are at the present time 8,000 first-class hotel rooms, besides the large number of rooms available in smaller hotels and apartment houses. Among the principal hotels may be mentioned the Rice, the Stratford, the Sam Houston, the Bristol, the Cotton, the Milby, the Tennison, the Brazos, the Macatee, the William Penn, the DeGeorge, the Bender, the Texas, the San Jacinto and the Auditorium Hotels. The five new hotels under construction will add 600 rooms to the city's hotel capacity.

With all this amazing growth in port facilities, in commerce, and in educational institutions one

MUNICIPAL GOLF LINKS.

would naturally expect a phenomenal growth in population. In 1860 the population of Houston was 4,845; in 1900 the population was 44,638, and the estimated population for 1926 is 230,500.

In 1925 the building permits of Houston totaled $35,000,000, being second in the South only to Miami, Florida. In January and February of 1926 the Houston building permits totaled over $5,000,000, which is in excess of those of any other southern city, not excluding the mushroom city of the land of Ponce de Leon. The growth of Houston has been a steady, solid growth and is not the result of a transient boom.

A poet wrote that the grass grows the greenest in Virginia, but the grass is dead in that fair state for half the year. In Houston the grass is green the whole year round. Every month is a month of flowers. The magnolias bloom there in such profusion that Houston has been called "The Magnolia City." Here the tropics and the temperate zone meet. The stately palms swaying gently under the influence of soft southern winds impel the visitor to linger in this paradise. The hospitality of the South is proverbial, and nowhere has it been cultivated to a greater degree than in Houston.

It was in Houston in 1869 that the State Medical Association of Texas was reorganized by a small band of devoted and capable Texas physicians. When the Association returns to Houston in 1926, it will indeed be a home-coming. But instead of the small struggling city nestled on the shallow, sluggish bayou, the Association will behold Houston, the deep water port, the greatest cotton port of the world, "The Fastest Growing City in the South."

SOME OF HOUSTON'S FINE HOTELS.

Announcements and Program

OF THE

SIXTIETH ANNUAL SESSION

OF THE

State Medical Association of Texas

May 25, 26 and 27, 1926

HOUSTON, TEXAS

OFFICERS

Dr. C. M. Rosser, President.....Dallas
Dr. William Keiller, President-Elect.....Galveston
Dr. G. B. Taylor, Vice-President.....Cameron
Dr. C. A. Gray, Vice-President.....Bonham
Dr. Minnie C. O'Brien, Vice-President..San Antonio
Dr. Holman Taylor, Secretary.....Fort Worth
Dr. K. H. Beall, Treasurer.....Fort Worth

BOARD OF TRUSTEES

Dr. W. R. Thompson, Secy. (four years) Fort Worth
Dr. M. L. Graves (three years).....Galveston
Dr. John S. Turner (two years).....Dallas
Dr. W. B. Russ (one year).....San Antonio
Dr. John T. Moore, Chm. (term expires)....Houston

COUNCILORS

First District

Dr. W. L. Brown (one year).....El Paso

Second District

Dr. P. C. Coleman (term expires).....Colorado

Third District

Dr. R. S. Killough[1] (two years).....Amarillo

Fourth District

Dr. Joe E. Dildy (one year).....Brownwood

Fifth District

Dr. S. P. Cunningham (two years)....San Antonio

Sixth District

Dr. C. P. Yeager (two years).....Kingsville

Seventh District

Dr. Joe Gilbert (term expires).....Austin

Eighth District

Dr. O. S. McMullen (term expires).....Victoria

Ninth District

Dr. W. B. Thorning (term expires).....Houston

Tenth District

Dr. D. S. Wier (term expires).....Beaumont

Eleventh District

Dr. R. H. McLeod (one year).....Beaumont

Twelfth District

Dr. N. D. Buie (two years).....Marlin

Thirteenth District

Dr. J. H. Caton (one year).....Eastland

Fourteenth District

Dr. A. B. Small (one year).....Dallas

Fifteenth District

Dr. J. K. Smith (two years).....Texarkana

[1] Appointed to fill unexpired term of Dr. A. S. Lumpkin, resigned.

DELEGATES TO A. M. A.[2]

Delegates

Dr. J. W. Burns (term expires).....Cuero
Dr. A. C. Scott (term expires).....Temple
Dr. Thos. Dorbandt (term expires).....San Antonio
Dr. Holman Taylor (one year).....Fort Worth
Dr. S. P. Rice (one year).....Marlin
Dr. G. B. Foscue (one year).....Waco

Alternates

Dr. Joe Dildy (term expires).....Brownwood
Dr. R. W. Knox (term expires).....Houston
Dr. J. E. Thompson (term expires).....Galveston
Dr. D. R. Venable (one year).....Fort Worth
Dr. W. D. Jones (one year).....Dallas
Dr. I. L. McGlasson (one year).....San Antonio

COUNCIL ON MEDICAL DEFENSE

Dr. W. D. Jones, Chairman (one year), Dallas.
Dr. Holman Taylor, Sec. (ex-officio), Fort Worth.
Dr. W. A. King (three years), San Antonio.
Dr. A. P. Howard (two years), Houston.
Dr. F. P. Miller (term expires), El Paso.

Executive Council.

Ex-officio, the President (Chairman), and the Secretary (Secretary) of the Association, President-Elect, Vice-Presidents, Board of Trustees, Board of Councilors and the Legislative Committee.

Council on Scientific Work.

Ex-officio, the President and Secretary and officers of Scientific Sections.
Dr. A. C. Scott, Sr., Chm. (four years), Temple.
Dr. E. V. DePew (three years), San Antonio.
Dr. David W. Carter (two years), Dallas.
Dr. W. S. Barcus (one year), Fort Worth.
Dr. S. E. Thompson (term expires), Kerrville.

COMMITTEES

Committee on Legislation.

Dr. C. M. Rosser, Chairman (ex-officio), Dallas.
Dr. Holman Taylor, Secretary (ex-officio), Fort Worth.
Dr. C. R. Hannah (four years), Dallas.
Dr. Winifred Wilson (three years), Memphis.
Dr. C. W. Goddard (two years), Austin.
Dr. Joe Becton (one year), Greenville.
Dr. H. W. Cummings (term expires), Hearne.

Committee on Collection and Preservation of Records.

Dr. F. Paschal,[3] Chm. (four years), San Antonio.
Dr. J. D. Osborn (three years), Cleburne.
Dr. Marvin L. Graves (two years), Houston.
Dr. John T. Moore (one year), Houston.
Dr. S. P. Rice (term expires), Marlin.

Committe on Transportation.

Dr. Holman Taylor, Chairman, Fort Worth.
Dr. A. P. Howard, Houston.
Dr. C. W. Stevenson, Wichita Falls.
Dr. A. V. Cash, Abilene.
Dr. A. H. Easterling, Athens.

Committee on Arrangements for the Annual Session.

Dr. E. W. Bertner, Chairman, Houston.
Dr. F. S. Glover, Houston.
Dr. O. L. Norsworthy, Houston.
Dr. C. C. Green, Houston.
Dr. Robt. Johnston, Houston.
Dr. Wallace Ralston, Houston.
Dr. J. H. Graves, Houston.

[2] Appointments to fill vacancies, made necessary by reapportionment of Delegates by A. M. A.
[3] Deceased.

Committee on Memorial Exercises.

Dr. W. N. Wardlaw, Chairman, Childress.
Dr. Chas. Brokaw, Houston.
Dr. D. J. Jenkins, Daingerfield.
Dr. J. B. Dubose, Humble.
Dr. C. M. Covington, Montgomery.

Committee on Publicity.

Dr. O. L. Norsworthy, Chairman, Houston.
Dr. J. H. Florence, Houston.
Dr. F. J. Slataper, Houston.
Dr. F. B. King, Houston.
Dr. E. F. Robbins, Houston.

Committee on Scientific Exhibits.

Dr. H. O. Knight, Chairman, Galveston.
Dr. Wm. Looney, Dallas.
Dr. J. E. Robinson, Temple.
Dr. H. R. Dudgeon, Waco.
Dr. M. D. Levy, Houston.

Committee on Medical Education.

Dr. M. L. Graves, Chairman, Houston.
Dr. O. S. McMullen, Victoria.
Dr. W. H. Moursund, Dallas.
Dr. Will Cantrell, Greenville.
Dr. J. N. White, Texarkana.

Committee on Hospital Standardization.

Dr. Chas. H. Harris, Chairman, Fort Worth.
Dr. F. P. Miller, El Paso.
Dr. C. S. Venable, San Antonio.
Dr. J. A. Moore, Marshall.
Dr. H. R. Link, Palestine.

Committee on Compensation and Health Insurance.

Dr. A. F. Beverly, Chairman, Austin.
Dr. Everett Jones, Wichita Falls.
Dr. J. A. Gibson, Port Arthur.
Dr. H. F. Connally, Waco.
Dr. J. S. McCelvey, Temple.

Committee on Cancer.

Dr. J. M. Martin, Chairman, Dallas.
Dr. J. E. Thompson, Galveston.
Dr. A. E. Sweatland, Lufkin.
Dr. Curtice Rosser, Dallas.
Dr. C. C. Gidney, Plainview.

Committee on Health Problems in Education.

Dr. C. W. Goddard, Chairman, Austin.
Dr. J. M. Frazier, Belton.
Dr. Minnie L. Maffett, Dallas.
Dr. S. C. Broadstreet, Mt. Pleasant.
Dr. Jas. P. McAnulty, San Angelo.

Committee on Revision of Constitution and By-Laws.

Dr. H. W. Cummings, Chairman, Hearne.
Dr. A. C. Scott, Sr., Temple.
Dr. P. C. Coleman, Colorado.
Dr. R. S. Killough, Amarillo.
Dr. S. A. Collom, Texarkana.

Committee on Care and Treatment of the Insane.

Dr. T. L. Moody, Chairman, San Antonio.
Dr. John S. Turner, Dallas.
Dr. Wilmer L. Allison, Fort Worth.
Dr. Guy F. Witt, Dallas.
Dr. Geo. F. Powell, Terrell.

SPECIAL DELEGATES

Texas Member of the National Legislative Council.

Dr. W. B. Russ, San Antonio.
Dr. Joe Gilbert, Austin, Alternate.

Texas Representative National Council of Medical Education.

Dr. Marvin L. Graves, Houston.
Dr. Wm. Keiller, Galveston, Alternate.

Texas Delegate to the Association of American Medical Colleges.

Dr. W. H. Moursund, Dallas.
Dr. E. H. Cary, Dallas, Alternate.

To the Texas Dental Society.

Dr. I. L. McGlasson, San Antonio.

To the Texas Pharmaceutical Association.

Dr. Clay Johnson, Fort Worth.

To the Arkansas Medical Society.

Dr. Nettie Klein, Texarkana.

To the Colorado State Medical Society.

Dr. S. P. Vineyard, Amarillo.

To the Louisiana State Medical Society.

Dr. Richard E. Barr, Orange.
Dr. W. P. Coyle, Orange, Alternate.

To the New Mexico State Medical Association.

Dr. A. J. Caldwell, Amarillo.

To the Oklahoma State Medical Association.

Dr. E. Goolsby, Paris.

To the Texas Association of Sanitarians.

Dr. M. P. McElhannon, Belton.

LOCAL COMMITTEES

Committee on Arrangements.—Dr. E. W. Bertner, Chairman; Dr. Wallace Ralston, Vice-Chairman; Drs. F. S. Glover, Chas. C. Green, Robert Johnson, J. H. Graves, J. M. Greenwood and J. C. Michael.

Committee on Reception.—Dr. J. H. Foster, Chairman; Drs. Frank King, Ghent Graves, E. H. Lancaster, R. W. Knox, J. W. Scott and J. L. Taylor, with all members of the society not on other committees.

Committee on Clinics.—Dr. B. F. Smith, Chairman; Drs. N. W. Allen, J. E. Clark, Gavin Hamilton, I. E. Pritchett and Sidney Israel.

Committee on Lantern.—Dr. G. C. Lechenger, Chairman; Drs. A. S. Holley, W. G. McDeed, R. K. McHenry and B. T. Van Zant.

Committee on Finance.—Dr. W. G. Priester, Chairman; Drs. A. P. Howard, J. E. Hodges, T. Freundlich, P. H. Scardino, R. L. Bradley, C. M. Aves, F. L. Barnes, A. E. Greer, E. F. Robbins and L. J. Logue.

Committee on Halls.—Dr. F. R. Lummis, Chairman; Drs. J. D. Duckett, Herman Johnson, Louis Daily and Carl B. Young.

Committee on Public Lectures.—Dr. A. H. Flickwir, Chairman; Drs. W. M. Brumby, Jas. P. Westmoreland, W. W. Coulter, W. M. Wier and L. L. Handley.

Committee on Exhibits.—Dr. H. L. D. Kirkham, Chairman; Drs. J. H. Agnew, J. R. Bost, S. H. Moore and W. O. Williams.

Committee on Publicity.—Dr. O. L. Norsworthy, Chairman; Drs. F. J. Slataper, F. B. King and E. F. Robbins.

Committee on Women Physicians.—Dr. Ray Daily, Chairman; Drs. Martha A. Wood, Norma Elles Israel, Elva Wright, E. L. Heard and Clara K. Duncan.

Committee on Hotels.—Dr. J. H. Graves, Chairman; Drs. J. C. Ellis, Sidney Israel, M. A. Gant and J. M. O'Farrell.

Committee on Alumni Banquets.—Dr. Robert Johnson, Chairman; Drs. C. E. Bruhl, E. M. Arnold, F. H. Kilgore, M. J. Taylor and M. L. Brenner.

Committee on Entertainment.—Dr. J. Allen Kyle, Chairman; Drs. C. C. Cody, Joseph Mullen, C. U. Patterson, S. C. Red and E. M. Armstrong.

Committee on Golf.—Dr. C. C. Green, Chairman; Drs. E. F. Cooke, C. D. Creviston, R. M. Hargrove, C. P. Harris, L. J. Logue, W. E. Ramsey, T. A. Dickson, Palmer Archer, H. L. D. Kirkham and E. F. Robbins.

Committee on Transportation.—Dr. E. L. Goar, Chairman; Drs. P. L. Denman, M. D. Levy, Jas. E. Park, E. H. Lancaster, J. H. Turner, F. O. Calloway, Wm. Lapat, Henry Haden and M. L. O'Banion.

Committee on Ladies' Entertainment (to meet with Harris County Auxiliary).—Dr. Roy D. Wilson, Chairman; Drs. T. A. Dickson, S. A. Foote, S. M. Lister and L. W. Raney.

THE WOMAN'S AUXILIARY OF THE STATE MEDICAL ASSOCIATION OF TEXAS

President, Mrs. S. A. Collom, Texarkana; President-Elect, Mrs. E. V. DePew, San Antonio; Vice-Presidents, Mesdames K. V. Kibbie, Fort Worth, Dalton Richardson, Austin, C. M. Covington, Montgomery, H. H. Brown, Jr., Yoakum; Recording Secretary, Mrs. F. F. Kirby, Waco; Corresponding Secretary, Mrs. E. M. Watts, Texarkana; Treasurer, Mrs. J. W. Cathcart, El Paso; Publicity Chairman, Mrs. J. W. Burns, Cuero; Parliamentarian, Mrs. Boyd Reading, Galveston.

ANNOUNCEMENTS

BUSINESS

The Registration Office will be in the main lobby of the Municipal Auditorium, corner Louisiana Street and Texas Avenue, one and one-half blocks from the Rice Hotel.

An Information Bureau will be located in the main lobby of the Municipal Auditorium, near the Registration Office, where information may be obtained concerning places of meeting, hotels, railroads, street cars, entertainment, etc. Badges and programs will be given out at the Registration Office. Members, guests and visitors, are urged to register as soon as they arrive in the city.

The opening exercises will be held in Hall No. 1, Main Auditorium of the Municipal Auditorium. All other general meetings, except the memorial exercises, will be held in this hall. Memorial exercises will be held in the First Presbyterian Church, corner Main Street and McKinney Avenue.

The President's Reception will be held in the Ball Room of the Rice Hotel.

The House of Delegates will meet in Hall No. 2, the Ball Room, mezzanine floor, Rice Hotel.

The meetings of the Scientific Sections will be held as follows:

Hall No. 1, Main Auditorium of the Municipal Auditorium, Section on Public Health.

Hall No. 3, Junior Auditorium, Milam Street and Capitol Avenue, Section on Medicine and Diseases of Children.

Hall No. 4, Banquet Hall of the Municipal Auditorium, Section on Surgery.

Hall No. 5, Fifth Floor Chamber of Commerce Building, corner Texas and Milam Streets, Section on Eye, Ear, Nose and Throat.

Hall No. 6, Harris County Medical Society Rooms, Eleventh floor Keystone Building, Supplementary.

Hall No. 7, Rose Room, Rice Hotel, Sections on Radiology and Physiotherapy and on Gynecology and Obstetrics.

All mail and telegrams should be directed to the Information Bureau, care of the State Medical Association of Texas, Municipal Auditorium, Houston, Texas. Members are urged to leave their names and local addresses with the Information Bureau immediately upon their arrival, in order that mail and telegrams may be properly delivered.

Official announcements will be posted on bulletin boards at the Registration Office.

Commercial and Scientific Exhibits will be displayed in the main lobby of the Municipal Auditorium.

Dr. H. L. D. Kirkham, Keystone Building, Houston, Texas, is the Chairman of the Committee on Exhibits, to whom application for space should be made. All exhibits will be required to comply with the advertising standards of the TEXAS STATE JOURNAL OF MEDICINE, which are practically identical with those of *The Journal of the American Medical Association.*

SOCIAL

A Reception Committee representing the Women's Auxiliary of the Harris County Medical Society will be on duty at the principal hotels and at the Office of Registration at the Municipal Auditorium, corner Texas and Louisiana Streets, until noon, Wednesday, May 26th, for the purpose of receiving visiting women and furnishing them with such information as they may desire.

TUESDAY, MAY 25.

10:30 a. m.—There will be a meeting of the Executive Board of the Women's Auxiliary of the State Medical Association, at the Warwick Hotel.

5:00 to 7:00 p. m.—Mrs. S. C. Red will entertain with a reception at her home, 817 Caroline Street, in honor of the State President of the Women's Auxiliary, Mrs. S. A. Collom of Texarkana.

9:00 p. m.—There will be a President's evening at the University Club, for the Women's Auxiliary.

WEDNESDAY, MAY 26.

10:00 a. m.—Breakfast at the River Oaks Country Club for the Women's Auxiliary. This will be followed by the annual business session of the Auxiliary.

9:00 p. m.—President's Reception and Ball, to be held in the Rice Hotel Ball Room. During the evening there will be several vaudeville acts, for the entertainment of members and guests. Supper will be served.

THURSDAY, MAY 27.

During the morning hours no entertainments have been planned for the ladies. It is intended to allow this time for visiting, shopping and sightseeing, as may suit their pleasure.

Luncheon at the San Jacinto Battlegrounds.

PUBLIC HEALTH LECTURES

The Committee on Public Lectures, of which Dr. A. H. Flickwir of Houston, is chairman, has arranged for a series of public lectures for the churches of Houston, Sunday, May 23. These lectures constitute an important but unofficial part of the annual session. To date the following arrangements have been made:

First Presbyterian Church, evening services, Dr. C. M. Rosser, Dallas; Trinity Episcopal Church, evening services, Dr. S. E. Thompson, Kerrville;

First Methodist Church, morning services, Dr. James J. Terrill, Dallas; St. Paul's Methodist Church, evening services, Dr. A. C. Scott, Temple; First Christian Church, evening services, Dr. L. H. Martin, City Health Officer, Fort Worth; South End Christian Church, evening services, Dr. I. C. Chase, Fort Worth; Baptist Temple, Houston Heights, evening services, Dr. W. A. King, City Health Officer, San Antonio; Central Presbyterian Church, morning services, Dr. Fred J. Mayer, Opelousas, Louisiana; First Baptist Church, evening services, Dr. E. H. Cary, Dallas.

Dr. Wm. Seaman Bainbridge of New York, will deliver an address on the subject "Review of Recent Investigations into the Causation of Cancer, and the Outlook for Prevention and Treatment," which will be of interest to the public and to which the public will be invited, in the Main Auditorium of the Municipal Auditorium, Wednesday, beginning at 4:00 p. m.

On Thursday afternoon, in the Main Auditorium of the Municipal Auditorium, at the time of Introduction of Newly Elected Officers, Dr. I. L. McGlasson of San Antonio, will deliver an address on the subject "The Romance of Medicine." This address will be of special interest to the public and the public will be invited.

CLINICS

The Chairman of the Clinic Committee, Dr. B. F. Smith, has arranged interesting clinics to be held at the various hospitals. Notices will be posted the day before at the Information Bureau. Clinics will not be allowed to conflict with the work of Scientific Sections.

CLINIC LUNCHEONS

Each day during the meeting there will be a luncheon at the Rice Hotel, at which time addresses will be delivered by prominent members of the profession attending the meeting. This affair will be managed along the lines of the familiar luncheon club, each attendant paying for his own lunch. Tickets on sale at Information Bureau.

SCIENTIFIC EXHIBITS

The Committee on Scientific Exhibits announces the following incomplete list of exhibits, which will be found in the main lobby of the City Auditorium, near the Commercial Exhibits.

Dr. Altenburg, Professor of Biology, Rice Institute, Houston, will present a collection of intestinal parasites and pathogenic protozoa and mosquitoes, and slides showing different stages and varieties of the malarial organism.

Dr. Henry Haden of Houston will conduct a projectograph demonstration of the embryology of the eye.

Dr. Gibbs Milliken, Pathologist of the Hermann Hospital, Houston, will show a collection of pathological specimens from that institution.

Dr. H. L. D. Kirkham of Houston, will show a set of models of cleft palate and hare lip, with photographs of patients.

Dr. J. C. Michael of Houston, will present a collection of photographs of a variety of skin lesions, both before and after treatment.

The University of Texas will present an exhibit covering specimens from the departments of Anatomy, Pathology and Surgical Pathology.

Plans are on foot to secure some of the best of the scientific exhibits shown during the Dallas session of the American Medical Association. Arrangements for other exhibits are in the making.

GOLF

Physicians who care to play golf during their stay in Houston, are invited to send in their entries for a Tournament, which will be held on Monday, May 24th, at the Houston Country Club. Club handicaps should be sent to Dr. Charles C. Green, Chairman, Second National Bank Building, Houston, as prizes will be offered to the players turning in the lowest scores. For further information, address Dr. Green.

MEMORIAL EXERCISES

Memorial Exercises will be conducted by the Chairman of the Committee on Memorial Exercises, Dr. W. N. Wardlaw, Childress, in the First Presbyterian Church, corner Main Street and McKinley Avenue, beginning at 8:00 p. m. Tuesday, May 25.

ALUMNI BANQUETS

Alumni banquets will be held Tuesday evening, May 25, as arranged by the Chairman of the Alumni Banquet Committee, Dr. Robert Johnston, Kress Building, Houston. Tickets for the various events will be on sale near the Information Bureau, in the main lobby of the Municipal Auditorium. These events are scheduled to *follow* the Memorial Exercises, and under no circumstances should they begin before the hour set.

RATES

Tickets will be on sale May 22-26, both dates inclusive, at one and one-half fare for the round trip, on the identification plan, with return limit May 29. Certificates will be furnished by county society secretaries or the State Secretary, to those who desire to purchase the reduced rate ticket. This certificate will entitle the holder, who must be a member, to purchase the reduced rate ticket. This certificate fare, and by no other means may this reduced rate be secured. One certificate will suffice for any number of people dependent upon a member for support, and accounted as of his family.

OTHER MEETINGS

The Texas Radiological Society, the Texas Railway Surgical and Hygienical Association and the State Pathological Society of Texas, will meet in Houston, Monday, May 24. Also, on this day there will be a meeting of the newly organized "Texas Federation for Health Education," of which the State Medical Association is a member and, indeed, the organizer. This organization was perfected in answer to a call issued by Dr. C. W. Goddard of Austin, Chairman of the State Medical Association Committee on Health Problems in Education. This committee constitutes the *liaison* between the State Medical Association and the American Medical Association, in cooperating with the National Educational Association on the general subject of health problems in education, as indicated by the designation of the committee. It is an important and far-reaching organization.

HOUSTON HOTEL RATES

Bender.—(240 Rooms.)—Without bath, $1.50 and $2.00, single; $2.50 and $3.00, double. With bath, $2.50 to $5.00, single; $4.00 to $7.50, double—2-room suites, $10.00.

Brazos.—(226 Rooms.)—Without bath, $1.50, single; $2.50, double. With bath, $2.00, $2.50 and $3.00, single; $3.50, $4.00 and $5.00, double.

Bristol.—(125 Rooms.)—Without bath, $1.50, single; $2.50, double. With bath, $2.00 and $2.50, single; $3.00 and $3.50, double; $4.00, twin beds.

Cotton.—(160 Rooms.)—All with bath, $2.00 and $2.50, single; $3.00 and $3.50, double.

De George.—(100 Rooms.)—Without bath, $1.50 and $2.00, single; $2.50 and $3.00, double. With bath, $2.00 and $2.50, single; $3.50 and $4.00, double.

Macatee.—(100 Rooms.)—Without bath, $1.50, single; $2.50, double. With bath, $2.00, $2.50 and $3.00, single; $3.00, $3.50, $4.00 and $5.00, double.

Milby.—(150 Rooms.)—Without bath, $1.50, single; $2.50, double. With bath, $2.00 and $2.50, single; $3.00 and $3.50, double.

Plaza.—With bath, $3.00 to $6.00, single; $5.00 to $10.00, double. *En suite*, $10.00 up—2 to 4 people.

Rice.—(600 Rooms.)—Without bath, $2.00 and $2.50, single; $3.00 and $4.00, double. With bath, $3.00, $3.50, $4.00, $4.50, $5.00 and $6.00, single; $5.00, $6.00, $7.00 and $9.00, double.

Sam Houston.—(200 Rooms.)—All with bath, $2.00 and $2.50, single; $3.00 and $3.50, double; $4.00 and $5.00, twin beds.

Stratford.—(114 Rooms.)—Without bath, $1.00 and $1.25, single; $1.50 and $2.00, double. With bath, $1.50, $2.00 and $2.50, single; $2.50, $3.00 and $3.50, double.

Tennison.—(107 Rooms.)—Without bath, $1.50 and $1.75, single; $2.50 and $2.75, double. With bath, $2.00 and $2.50, single; $3.50 and $4.00, double.

Wm. Penn.—(160 Rooms.)—All with bath, $2.00 and $2.50, single; $3.00 and $3.50, double.

Warwick.—With bath, $3.00 and $3.50, single; $4.00 and $5.00, double. Suite of rooms: living room, bedroom and bath, $7.50 to $10.00.

HOUSE OF DELEGATES

First Meeting, Monday, May 24, 1:30 p. m., Hall No. 2, Rice Hotel

1. Call to order.
2. Roll call and announcement of result.
3. Reading of minutes of previous meeting.
4. Appointment of Reference Committees:
   (1) Reference Committee on Credentials.
   (2) Reference Committee on Reports of Officers and Committees.
   (3) Reference Committee on Resolutions and Memorials.
   (4) Reference Committee on Finance.
   (5) Reference Committee on Amendments to Constitution and By-Laws.
   (6) Reference Committee on Scientific Work.
5. Report of Secretary.
6. Report of Treasurer.
7. Report of Board of Trustees.
8. Report of Board of Councilors.
9. Report of Executive Council.
10. Report of Council on Medical Defense.
11. Report of Council on Scientific Work.
12. Report of Standing Committees:
    Committee on Legislation.
    Committee on Collection and Preservation of Records.
    Committee on Transportation.
    Committee on Arrangements for the Annual Session.
    Committee on Memorial Exercises.
    Committee on Publicity.
13. Report of Special Committees:
    Committee on Scientific Exhibits.
    Committee on Medical Education.
    Committee on Hospital Standardization.
    Committee on Compensation and Health Insurance.
    Committee on Cancer.
    Committee on Health Problems in Education.
    Committee on Revision of Constitution and By-Laws.
    Committee on Care and Treatment of the Insane.
14. Report of Special Delegates:
    Texas Member of the National Legislative Council.
    Texas Representative of the National Council on Medical Education.
    Delegate to the Association of American Medical Colleges.
    Delegate to the Texas State Dental Society.
    Delegate to the Texas Pharmaceutical Association.
    Delegate to the Arkansas Medical Society.
    Delegate to the Colorado State Medical Society.
    Delegate to the Louisiana State Medical Society.
    Delegate to the New Mexico State Medical Association.
    Delegate to the Oklahoma State Medical Association.
    Delegate to the Texas Association of Sanitarians.
15. Presentation of Fraternal Delegates.
16. Report of Special Committees of the House.
17. Reading of Communications.
18. Reading of Memorials and Resolutions.
19. Unfinished Business.
20. New Business.
21. Reports of Reference Committees.
22. Election of Officers (morning of last day):
    President-Elect.
    Three Vice-Presidents.
    One Trustee.
    Five Councilors.
    Three Delegates to A. M. A.
    Three Alternate Delegates to A. M. A.
    Member Council on Medical Defense.
    Member Council on Scientific Work (Nominated by President-Elect).
    Member Committee on Legislation (Nominated by President-Elect).
    Member Committee on Collection and Preservation of Records (Nominated by Retiring President).
23. Selection of Time and Place of Next Annual Session.

RULES GOVERNING SCIENTIFIC PAPERS

Chapter X of the By-Laws provides as follows:

Section 1. The Scientific Program for the Annual Sessions shall be divided into the following sections:

(1) Section on Medicine and Diseases of Children.
(2) Section on Surgery.
(3) Section on Gynecology and Obstetrics.
(4) Section on Eye, Ear, Nose and Throat.
(5) Section on Radiology and Physiotherapy.
(6) Section on Public Health.

Sec. 2. The President shall appoint a chairman and secretary for each section. It shall be the duty of said chairman and secretary to, in consultation with the Committee on Scientific Work, prepare programs for their respective sections for the next annual session following their appointment. Their term of office shall conclude with the adjournment of the annual session for which their respective programs are compiled.

Sec. 3. The number of papers to be presented on section programs shall be limited as follows: Section on Medicine and Diseases of Children, 25; Section on Surgery, 25; Section on Gynecology and

Obstetrics, 18; Section on Eye, Ear, Nose and Throat, 20; Section on Radiology and Physiotherapy, 18; Section on Public Health, 20.

Sec. 4. Section officers shall select the papers to be presented to their respective sections from among the best papers offered, and in accordance with the general plans for the work of the scientific sections formulated by the Council on Scientific Work. Final decision as to the papers to be thus selected shall be deferred by section officers until approximately sixty days before the date of the Annual Session, and any member of the State Association who is in good standing shall have the right, and it shall be his privilege, to offer a paper to any scientific section, but no member or guest shall be allowed to contribute more than one paper to the programs of the scientific sections at the same session, and no paper that has been published shall be accepted for the scientific programs of any session of the Association.

Sec. 5. Papers presented by members of the Association must have first been read in full before a component county society, or, where a component county society is not available for this purpose, the district society of which the author is a member. The secretary of such society shall certify to the section secretary that such paper has been so read. It shall be the duty of the officers of sections to ascertain from members who are on their respective programs whether this requirement has been met, and they shall refuse to permit the reading of such papers before their respective sections unless this by-law has been complied with. Papers offered to the scientific sections shall be considered the pledged property of the State Association, and shall in fact become the property of the said State Association when presented, and prospective authors shall be so informed by section officers in advance of the acceptance of their contributions. Papers shall be delivered to the secretary of the section as soon as they have been read before the section; and in the instance the author is not able to present his paper, he shall see that it comes into the possession of the section secretary in time for presentation if it is the desire of the section chairman to have it so presented. All such papers shall be prepared in typewritten form, shall be "originals," written on one side of the paper only, double-spaced and with ample margins, and not bound.

Sec. 6. Scientific Sections shall convene at the time and place prescribed by the scientific program for the Annual Session, and their sessions shall be so conducted as to insure the completion of the program in the time specified. Under no circumstances will such sessions be permitted to interfere with or extend into the time set aside on the program for a General Meeting. The sessions of scientific sections shall be governed by rules of order prepared by the Council on Scientific Work, and where such rules do not cover, by Robert's Rules of Order, so far as Robert's Rules of Order may apply. No essayist shall be permitted more than twenty minutes in which to present his paper; provided, that the Council on Scientific Work may make exception to this rule in advance, which exception, when made, shall be noted on the program. Not more than five minutes shall be allowed each speaker in discussing any one paper. The time allowed speakers shall not be extended in any instance, but it shall be within the province of a section to continue the presentation or discussion of any paper following the time of adjournment of the section, provided the said extension of time does not conflict with a General Meeting.

Sec. 7. Petitions, memorials and resolutions originating in scientific sections must be approved by the House of Delegates before becoming operative.

First Day, Tuesday, May 25

GENERAL MEETING—OPENING EXERCISES

10:30 a. m.

Main Auditorium, Municipal Auditorium, Texas Avenue and Louisiana Street

Call to Order and Announcements, Chairman Arrangement Committee.....Dr. E. W. Bertner

Invocation.....Dr. Wm. States Jacobs

Music.

Address of Welcome on Behalf of the City of Houston.....Mayor Oscar F. Holcombe

Address of Welcome on Behalf of the Harris County Medical Society....Dr. James Greenwood

Response and President's Address....Dr. C. M. Rosser

Music.

Benediction.....Rev. M. M. Wolf

SECTION ON MEDICINE AND DISEASES OF CHILDREN.

1:00 to 5:00 p. m., Hall No. 3, Junior Auditorium, Milam Street and Capitol Avenue

Dr. Boyd Reading,[1] Chairman.....Galveston
Dr. W. P. White, Secretary.....Henderson

1. *Chairman's Address.*
2. *Gall Bladder Diagnosis.*
   Dr. Lee Rice.....San Antonio
   Discussion opened by Drs. James H. Agnew and Gibbs Milliken, Houston.
3. *Treatment of Diabetes Mellitus, with Report of Cases.*
   Dr. C. Frank Brown.....Dallas
   Discussion opened by Drs. David W. Carter, Jr., and Sam Kahn, Dallas.
4. *Diagnostic Value of the Glucose Tolerance Test.*
   Dr. H. L. Wilder.....Clarendon
   Discussion opened by Dr. T. C. Terrell, Fort Worth.
5. *The Practical Adjustment of Insulin Dosage and Some of the Difficulties Encountered.*
   Dr. Isaac Ivan Lemann.....New Orleans
   Discussion opened by Dr. V. M. Longmire, Temple.
6. *Periodic Health Examinations.*
   Dr. Davis D. Carter, Jr.....Dallas
   Discussion opened by Dr. O. B. Kiel, Wichita Falls.

(Section continued on Wednesday.)

SECTION ON SURGERY.

1:00 to 5:00 p. m., Hall No. 4, Banquet Hall, Municipal Auditorium.

Dr. A. B. Small, Chairman.....Dallas
Dr. J. Hal Gambrell, Secretary.....El Paso

1. *Chairman's Address, "Mechanical Duodenal Ileus."*
2. *Duodenal Ileus, with Report of Case.*
   Dr. K. H. Aynesworth.....Waco
   Discussion opened by Dr. F. A. Hudson, Enid, Oklahoma.
3. *The Present Status of Arthroplasty.*
   Dr. B. L. Schoolfield.....Dallas
4. *Arthroplasty, with Lantern Slides.*
   Dr. W. B. Carroll.....Dallas
   Discussion of papers 3 and 4 opened by Drs. Solomon D. Davis, Houston, and Chas. F. Clayton, Fort Worth.

1. Appointed to fill unexpired term of Dr. J. H. Eastland of Mineral Wells, deceased.

5. *Congenital Tracheo Esophageal Fistula.*
Dr. John W. Neely.....Terrell
Discussion opened by Dr. Violet H. Keiller, Galveston.
(Section continued on Wednesday.)

SECTION ON EYE, EAR, NOSE AND THROAT.

1:00 to 5:00 p. m., Hall No. 5,
Fifth Floor, Chamber of Commerce Building,
Corner of Texas and Milam Streets.

Dr. E. H. Vaughn, Chairman.....Tyler
Dr. D. L. Bettison, Secretary.....Dallas

1. *Chairman's Address.*
2. *Nasal Pathology and Its Relation to Bronchial Asthma.*
Dr. I. S. Kahn.....San Antonio
Discussion opened by Major E. Sherman, M. C. U. S. A., and Drs. Eldridge Adams and C. J. Boehs, San Antonio.
3. *The Value of a Field of Vision in the Diagnosis of Eye Disease.*
Dr. Newton H. Bowman.....Waco
Discussion opened by Dr. Wallace Ralston, Houston.
4. *Tonometric Measurements, An Essential Part of Routine Eye Examination.*
Dr. Henry C. Haden.....Houston
Discussion opened by Drs. Turner F. Roberts, Paris, and Jno. O. McReynolds, Dallas.
5. *Tonsillectomy.*
(a) *My Routine Procedure in Tonsillectomies.*
Dr. Frank D. Boyd.....Fort Worth
(b) *Hemorrhage Following Tonsillectomy.*
Dr. J. S. Bardin.....Fort Worth
(c) *Factors Helpful in Preventing Post-Tonsillectomy Complications.*
Dr. E. C. Mead.....Gainesville
Discussion opened by Drs. T. L. Goodman, Fort Worth; O. H. Judkins, San Antonio; Horace T. Aynesworth, Waco, and M. L. O'Banion, Houston.
6. *Disease of the Tonsil, from the Viewpoint of the Internist.*
Dr. Geo. L. Carlisle.....Dallas
Discussion opened by Drs. Alvis E. Greer, Houston, and K. H. Beall, Fort Worth.
(Section continued on Wednesday.)

SECTION ON PUBLIC HEALTH.

1:00 to 5:00 p. m., Hall No. 1,
Main Auditorium, Municipal Auditorium.

Dr. H. O. Sappington, Chairman.....Austin
Dr. W. A. King, Secretary.....San Antonio

1. *Chairman's Address.*
2. *A Step in the Prevention of Tuberculosis, The County Sanitarium.*
Drs. C. J. Koerth and R. C. McCorkle, W. O. W. Hospital.....San Antonio
3. *Equilibrium of Epidemic Diseases.*
Dr. L. H. Martin, Director of Public Health and Welfare.....Fort Worth
4. *The Necessity of Correlating the Activities of All Health Organizations and Agencies in Promoting Health Education.*
Dr. C. W. Goddard, Chief of Health Service, University of Texas.....Austin
5. *The Importance of Health Education.*
Dr. A. H. Flickwir, City Health Officer.....Houston
6. *Physical Education in the State University.*
B. F. Pittenger, Ph. D., Professor of Educational Administration.....Austin
7. *Health Protection in the Modern City.*
Dr. A. H. Speer, City Health Officer.....Corpus Christi
(Section continued on Wednesday.)

SECTION ON RADIOLOGY AND PHYSIOTHERAPY.

1:00 to 5:00 p. m., Hall No. 7,
Rose Room, Rice Hotel.

Dr. J. W. Torbett, Chairman.....Marlin
Dr. L. W. Kuser, Secretary.....Gainesville

1. *Chairman's Address, "Some General Uses of Physical Therapeutics."*
2. *X-Ray Therapy in Hyperthyroidism.*
Dr. Jas. M. Martin.....Dallas
Discussion opened by Drs. R. T. Wilson, Temple, and B. T. Van Zandt, Houston.
3. *Physiotherapy Methods of Treatment of Various Chronic Ailments.*
Dr. W. F. Martin.....Battle Creek
Discussion opened by Drs. W. O. Sauermann, Houston, and S. S. Munger, Marlin.
4. *X-Ray Study of Sinuses and Thymus Glands in Infants.*
Dr. W. W. Wasson.....Denver
Discussion opened by Drs. H. Leslie Moore, Dallas, and Earl D. Crutchfield, Galveston.
5. *Treatment of Chronic Intestinal Stasis, with Lantern Slides.*
Dr. S. D. Whitten.....Greenville
Discussion opened by Dr. A. L. Roberts, Fort Worth, and Stanley Whitacre, San Antonio.
6. *To the Roentgenologists and Clinicians, from a Roentgenologist.*
Dr. S. C. Barrow.....Shreveport
Discussion opened by Drs. I. W. Jenkins, Waco; M. D. Levy, Houston, and J. B. Johnson, Galveston.
7. *Physiotherapy, A Medical Art.*
Dr. W. O. Sauermann.....Houston
Discussion opened by Dr. G. C. Lechenger, Houston.
(Section continued on Wednesday.)

MEMORIAL EXERCISES.

8:00 to 9:00 p. m.,

First Presbyterian Church, Corner Main Street and McKinney Avenue.

Ellison Van Hoose, Director.
Mrs. Harry McLean, Accompanist.

Organ Prelude (Selected).
Mrs. Harry R. McLean.....Houston

Jerusalem (Rodney).
Mr. Raymond B. Lee and Kiwanis Glee Club.....Houston

Reading Names of Deceased

Beautiful Isle of Somewhere (Fearis).
Kiwanis Glee Club.....Houston

Memorial Address.
Chairman Committee on Memorial Exercises, Dr. W. N. Wardlaw.....Childress

Open the Gates of the Temple (Knapp).
Mr. John Marshall (Tenor Solo).....Houston

Ave Maria (Bach-Gunod).
Mrs. William Ahring and Kiwanis Glee Club.....Houston

Organ Postlude (Selected).
Mrs. Harry R. McLean.....Houston

Second Day, Wednesday, May 26

SECTION ON MEDICINE AND DISEASES OF CHILDREN—Continued.

9:00 a. m. to 4:00 p. m., Hall No. 3, Junior Auditorium, Milam Street and Capitol Avenue.

7. *Some Thoughts on Arteriosclerosis and Allied Conditions.*
   Dr. I. L. Van Zandt.....Fort Worth
   Discussion opened by Drs. C. R. Hannah, Dallas, and John Potts, Fort Worth.
8. *Syphilitic Aortitis, Early Diagnosis.*
   Dr. Joseph Kopecky.....Galveston
   Discussion opened by Dr. W. S. Hanson, San Antonio.
9. *Cardiac Infarct.*
   Dr. Ghent Graves.....Houston
   Discussion opened by Drs. Lee Rice, San Antonio, and Paul Ledbetter and B. F. Smith, Houston.
10. *The Present Status of Digitalis Therapy.*
   Dr. Chas. W. Barrier.....Fort Worth
   Discussion opened by Dr. C. M. Grigsby, Dallas.
11. *Pericarditis with Effusion.*
   Dr. B. F. Smith.....Houston
   Discussion opened by Dr. C. V. Ezell, Cleburne.
12. *Observations of the Heart and Rheumatic Conditions.*
   Dr. O. T. Bundy.....Marlin
   Discussion opened by Dr. N. D. Buie, Marlin.
13. *The Diagnosis of Subacute Bacterial Endocarditis.*
   Drs. H. M. Winans and Janet Caldwell ..... Dallas
   Discussion opened by Dr. C. T. Stone, Galveston.
14. *Pulmonary Streptothricosis.*
   Dr. Moise D. Levy.....Houston
   Discussion opened by Drs. Harold Freed, San Antonio, and Henry Hartman, Galveston.
15. *Report of 300 Cases of Pyelitis.*
   Dr. R. E. Van Duzen.....Dallas
   Discussion opened by Dr. Frank S. Schoonover, Fort Worth.

(Section continued on Thursday.)

SECTION ON SURGERY—Continued.

9:00 a. m. to 4:00 p. m., Hall No. 4, Banquet Hall, Municipal Auditorium.

6. *Carotid Ligation in Epistaxis.*
   Dr. Hodges McKnight.....Fort Worth
   Discussion opened by Dr. K. H. Aynesworth, Waco.
7. *Choice of Procedure in Rectal Cancer (Lantern Slides).*
   Dr. Curtice Rosser.....Dallas
   Discussion opened by Drs. C. L. Martin, Dallas, and A. C. Scott, Sr., Temple.
8. *Pathological Lesions of the Tongue.*
   Dr. May Owen.....Fort Worth
   Discussion opened by Dr. Martha A. Wood, Houston.
9. *Cystoscopic Removal of Ureteral Calculi: Presentation of a New Instrument.*
   Dr. Howard L. Cecil.....Dallas
   Discussion opened by Dr. K. D. Lynch, El Paso.
10. *Ureteral Obstruction.*
   Dr. A. C. Gilbert.....Dallas
   Discussion opened by Dr. Rex R. Ross, San Antonio.
11. *Complication of Supra-Pubic Prostatectomy, Incidence and Treatment.*
   Dr. Edward White.....Dallas
   Discussion opened by Dr. B. W. Turner, Houston.
12. *Gastro-Intestinal Diverticuli.*
   Dr. Wm. Seaman Bainbridge.....New York
   Discussion opened by Drs. Clay Johnson, Fort Worth, and Minnie L. Maffett, Dallas.
13. *Surgical Treatment in Selected Cases of Pulmonary Tuberculosis.*
   Dr. Horace Reed..... Oklahoma City
14. *Paravertebral Extrapleural Thoracoplasty in the Treatment of Pulmonary Tuberculosis.*
   Dr. F. P. Miller.....El Paso
   Discussion of papers 13 and 14 opened by Drs. A. F. Clark, San Antonio, and J. B. McKnight, Sanatorium.
15. *The Importance of Cardiac Studies in Elective Surgery.*
   Dr. Hugh Crouse.....El Paso
   Discussion opened by Drs. W. W. Waite, El Paso; R. S. Adams, San Antonio, and B. Rubenstein, Dallas.

(Section continued on Thursday.)

SECTION ON EYE, EAR, NOSE AND THROAT —Continued.

9:00 a. m. to 4:00 p. m., Hall No. 5, Fifth Floor, Chamber of Commerce Building, Corner of Texas and Milam Streets.

7. *Mastoiditis in Infants.*
   Dr. E. H. Cary.....Dallas
   Discussion opened by Drs. M. H. Boerner, Austin, and A. F. Clark, San Antonio.
8. *Ears.*
   Dr. Jno. T. Crebbin.....New Orleans
   Discussion opened by Drs. W. D. Jones, Dallas, and J. H. Foster, Houston.
9. *Zinc Ionization in the Treatment of Chronic Purulent Otitis Media.*
   Dr. Hugh L. McLaurin.....Dallas
   Discussion opened by Drs. Jno. T. Crebbin, New Orleans, and Sidney Israel, Houston.
10. *Maxillary Sinusitis.*
   (a) *Treatment of Acute Maxillary Sinusitis.*
   Dr. E. Meredith Sykes.....San Antonio
   (b) *Chronic Maxillary Sinus Disease: Its Diagnosis and Treatment (Lantern Slides).*
   Dr. Sidney Israel.....Houston
   Discussion opened by Drs. D. L. Bettison, Dallas, and Lyle J. Logue, Houston.
11. *The Development of the Mechanics of Direct Laryngoscopy.*
   Dr. D. T. Atkinson.....San Antonio
   Discussion opened by Dr. Geo. S. McReynolds, Temple.
12. *Malignancy as Found in the Eye, Ear, Nose and Throat (Report of Cases).*
   Dr. Oscar M. Marchman.....Dallas
   Discussion opened by Dr. Edward H. Cary, Dallas.
13. *Radium in the Treatment of Nasal Polypi.*
   Dr. Sam N. Key.....Austin
   Discussion opened by Dr. James W. Ward, Greenville.
14. *The Unusual Behavior of a Case of Glaucoma Simplex, Over a Period of Two and One-Half Years.*
   Dr. David L. Bettison.....Dallas
   Discussion opened by Dr. Henry C. Haden, Houston.

15. *Intranasal Surgery of Dacryocystitis (Report of Cases).*
Dr. Louis Daily.....Houston
Discussion opened by Drs. O. M. Marchman, Dallas, and H. L. Warwick, Fort Worth.

16. *Chronic Idiopathic Atrophic Rhinitis: The Rationale of Its Treatment.*
Dr. L. M. Sellers.....Dallas
Discussion opened by Drs. Jno. L. Jenkins, Dallas, and W. R. Thompson, Fort Worth.
(Section continued on Thursday.)

SECTION ON PUBLIC HEALTH—Concluded.
9:00 a. m. to 4:00 p. m., Hall No. 1,
Main Auditorium of the Municipal Auditorium.

8. *Decision, Its Significance in Mental Health.*
H. H. House, Professor Physical Education, A. & M., President Texas Physical Education Association.....College Station

9. *Organization and Administration of Municipal Health Departments.*
Dr. John W. Brown, City Health Officer ..... El Paso

10. *Nutrition and Its Relation to Public Health.*
Jet Corine Winters, M. A., Associate Professor of Home Economics, University of Texas.....Austin

11. *Attitudes, Practice and Knowledge, Objectives in Health Education.*
Jeanie M. Pinckney, M. A., Chief of Bureau of Nutrition and Health Education of the Division of Extension ..... Austin

12. *How the Health Officer May Interest Teachers in Public Health.*
Dr. W. A. Buice, Professor Bacteriology and Hygiene, Baylor University.....Waco

13. *Meeting of County and City Health Officers of the State of Texas.*
(Section Adjourned.)

SECTION ON RADIOLOGY AND PHYSIOTHERAPY—Concluded.
9:00 a. m. to 12:00 m., Hall No. 7,
Rose Room, Rice Hotel.

8. *Diverticulum of Lower Third of the Oesophagus.*
Dr. Dalton Richardson.....Austin
Discussion opened by Drs. Charles L. Martin, Dallas, and Evarts B. DePew, San Antonio.

9. *Some Uses of Ultra Violet Light.*
Dr. I. W. Jenkins.....Waco
Discussion opened by Drs. E. D. Crutchfield, Galveston, and C. M. Griswold, Houston.

10. *Visualization of the Gall Bladder.*
Dr. W. G. McDeed.....Houston
Discussion opened by Drs. W. S. Hamilton, San Antonio; Dalton Richardson, Austin, and Gibbs Milliken, Houston.

11. *Injuries to the Spine Without Accompanying Cord Injuries.*
Dr. Harry L. Farmer.....Fort Worth
Discussion opened by Drs. Samuel Jagoda, Fort Worth, and R. W. Knox, Houston.

12. *Radiation of the Non-Malignant Conditions of the Female Pelvis.*
Dr. R. H. Millwee.....Dallas
Discussion opened by Drs. J. W. Cathcart, El Paso, and R. T. Wilson, Temple.

13. *Fractional X-Ray Dosage in the Treatment of Acne Vulgaris.*
Dr. Tom B. Bond.....Fort Worth
Discussion opened by Dr. C. F. Lehman, San Antonio.
(Section Adjourned.)

SECTION ON GYNECOLOGY AND OBSTETRICS.
1:00 to 4:00 p. m., Hall No. 7,
Rose Room, Rice Hotel.

Dr. J. H. McLean, Chairman.....Fort Worth
Dr. J. W. Nixon, Jr., Secretary.....San Antonio

1. *Chairman's Address.*

2. *A Consideration of Cancer of the Uterus.*
Dr. M. W. Sherwood.....Temple
Discussion opened by Dr. Joe Becton, Greenville.

3. *Preliminary Report of Five Years Use of Radium in Cancer of the Uterus.*
Dr. O. L. Norsworthy.....Houston
Discussion opened by Dr. J. S. McCelvey, Temple.

4. *The Blood Picture as an Aid in the Diagnosis of Ruptured Ectopic Pregnancy.*
Dr. Kenneth M. Lynch.....Dallas
Discussion opened by Dr. T. C. Terrell, Fort Worth.

5. *Chorio-Epithelioma: Etiology and Pathology.*
Dr. Earl B. Rogers.....El Paso
Discussion opened by Dr. Henry Hartman, Galveston.
(Section continued on Thursday.)

GENERAL MEETING.
4:00 to 5:00 p. m., Hall No. 1,
Main Auditorium, Municipal Auditorium.

1. *Address: "Review of Recent Investigations Into The Causation of Cancer, and the Outlook for Prevention and Treatment."*
Dr. Wm. Seaman Bainbridge.....New York

Third Day, Thursday, May 27

SECTION ON MEDICINE AND DISEASES OF CHILDREN—Concluded.
9:00 a. m. to 4:00 p. m., Hall No. 3,
Junior Auditorium, Milam Street and Capitol Avenue.

16. *Enlarged Thymus, with X-Ray Demonstrations.*
Dr. H. Leslie Moore.....Dallas
Discussion opened by Dr. Gordon B. McFarland, Dallas.

17. *Hair Growth and Pigmentation Related to Endocrine Disorders.*
Dr. Wm. Engelbach.....St. Louis, Mo.
Discussion opened by Drs. Marvin L. Graves, Houston, and Will S. Horn, Fort Worth.

18. *The Treatment of Hypothyroidism.*
Dr. Arthur C. Scott, Jr.....Temple
Discussion opened by Drs. Albert Woldert, Tyler, and Jas. H. Agnew, Houston.

19. *Subconscious Psychic Defense Reaction.*
Drs. J. J. Terrill and Guy F. Witt.....Dallas
Discussion opened by Drs. James Greenwood, Houston, and J. A. McIntosh, San Antonio.

20. *State Psychiatric Institute, a Prerequisite to Development.*
Dr. V. D. Thomas.....Terrell
Discussion opened by Dr. T. B. Bass, Abilene.

21. *Hemorrhoids: Treatment by Injection of Chemicals.*
Dr. Herbert T. Hayes.....Houston
Discussion opened by Dr. Leland C. Ellis, Dallas.

22. *The Prevention of Tuberculosis.*
Dr. J. W. Laws.....El Paso
Discussion opened by Dr. S. E. Thompson, Kerrville.
(Section Adjourned.)

SECTION ON SURGERY—Concluded.
9:00 a. m. to 4:00 p. m., Hall No. 4,
Banquet Hall, Municipal Auditorium.

16. *The Perforated Duodenal Ulcer.*
Dr. L. W. Pollok.....Temple
Discussion opened by Dr. Everett Jones, Wichita Falls.

17. *End Results Following Surgical Treatment of Duodenal Ulcer.*
Dr. W. B. Russ.....San Antonio
Discussion opened by Dr. E. V. DePew.

17. *Rupture of the Diaphragm, with Lantern Slides.*
Dr. Frank C. Beall.....Fort Worth

19. *Diaphragmatic Hernia, with Report of Case.*
Dr. J. H. Gambrell.....El Paso
Discussion of papers 18 and 19 opened by Drs. John T. Moore, Houston, and G. T. Hall, Big Springs.

20. *Skin Grafting of Extensive Areas, with Lantern Slides.*
Dr. C. S. Venable.....San Antonio
Discussion opened by Dr. Irwin E. Colvin, Waco.

21. *Staphylococcus Infection of the Face and Lip.*
Dr. W. Lee Hudson.....Dallas
Discussion opened by Dr. A. F. Lumpkin, Amarillo.

22. *Osteochondritis Affection of the Metatarso-Phalangeal Articulation.*
Dr. Solomon David.....Houston
Discussion opened by Dr. J. W. Goode, San Antonio.

23. (*a*) *The Lymphoid Appendix, Its Peculiar Surgical Significance.* (*b*) *The Incompetent Ileo-Caecal Valve (Lantern Slides).*
Dr. B. T. Van Zant.....Houston
Discussion opened by Dr. Raymond L. Bradley, Houston.

24. *Some New Ideas in Cleft Palate Surgery to Improve Speech.*
Dr. H. L. D. Kirkham.....Houston
Discussion opened by Dr. Chas. Harris, Fort Worth.

25. *Glosso-Pharyngeal Neuralgia and Its Treatment.*
Dr. A. O. Singleton.....Galveston
Discussion opened by Dr. E. L. Carpenter, Dallas.
(Section Adjourned.)

SECTION ON EYE, EAR, NOSE AND THROAT—Concluded.
9:00 a. m. to 4:00 p. m., Hall No. 5,
Fifth Floor Chamber of Commerce Building,
Corner of Texas and Milam Streets.

17. *Extraction of Cataract (Senile) In a Chronic Glaucomatous Eye, with Subsequent Iridectomy.*
Dr. P. E. Suehs.....Austin
Discussion opened by Drs. F. J. Slataper, Houston, and Edgar H. Vaughn, Tyler.

18. *Telescopic Spectacles Magnifiers as Aids to Vision.*
Dr. Ray K. Daily.....Houston
Discussion opened by Drs. Jno. O. McReynolds, Dallas, and E. L. Goar, Houston.

19. *Traumatism of the Optic Nerve (Report of a Case).*
Dr. O. S. Hodges.....Beaumont
Discussion opened by Drs. J. M. Woodson, Temple, and W. P. Coyle, Orange.

20. *Central Choroiditis.*
Dr. R. H. T. Mann.....Texarkana
Discussion opened by Dr. T. W. Crowder, Sherman.

21. *Neurochoroiditis Complicated with Pituitary Insufficiency, Probably Due to Specific Cause (Report of a Case).*
Drs. H. L. Hilgartner and J. S. Lankford ..... Austin
Discussion opened by Drs. Frank D. Boyd, Fort Worth, and Henry C. Haden, Houston.
(Section Adjourned.)

SECTION ON GYNECOLOGY AND OBSTETRICS —Concluded.
9:00 a. m. to 4:00 p. m., Hall No. 7,
Rose Room, Rice Hotel.

6. *Ureteral Stricture and Its Relation to Pelvic Pain.*
Dr. W. E. Watt.....Austin
Discussion opened by Dr. T. S. Lorton, Fort Worth.

7. *Selection of Suture Material Necessary to Effective Obstetric and Gynecological Repair.*
Dr. Will Cantrell.....Greenville
Discussion opened by Dr. Elbert Dunlap, Dallas.

8. *Abortions: Causes, Diagnosis and Treatment.*
Dr. C. R. Hannah.....Dallas
Discussion opened by Dr. K. H. Aynesworth, Waco.

9. *The Determination of Causes of Sterility in Woman.*
Dr. Willard Cooke.....Galveston
Discussion opened by Dr. E. W. Bertner, Houston.

10. *Treatment of Sterility.*
Dr. G. A. Pagenstecher.....San Antonio
Discussion opened by Dr. Frank C. Beall, Fort Worth.

11. *Cervix Uteri of Parous Women.*
Dr. B. O. Works.....Brownsville
Discussion opened by Dr. S. P. Cunningham, San Antonio.

12. *Treatment of Puerperal Sepsis.*
Dr. Minnie C. O'Brien.....San Antonio
Discussion opened by Dr. Mary K. Robbie, San Antonio.

13. *Uterine Displacement and Its Correction.*
Lt. Col. R. F. Metcalfe, M. C., U. S. A. .....San Antonio
Discussion opened by Dr. R. E. Cone, Galveston.

14. *Pregnancy Complicated with Vincents Angina of the Vulva and the Vagina.*
Dr. H. Reid Robinson.....Galveston
Discussion opened by Dr. G. V. Morton, Fort Worth.
(Section Adjourned.)

GENERAL MEETING.
4:00 to 5:00 p. m., Hall No. 1,
Main Auditorium, Municipal Auditorium.

1. *Address "The Romance of Medicine."*
Dr. I. L. McGlasson.....San Antonio

2. *Introduction of Newly Elected Officers.*
(Session Adjourned.)

PROGRAM TEXAS RADIOLOGICAL SOCIETY.

May 24, 10:00 a. m., Hall No. 7, Rose Room, Rice Hotel.

DR. C. L. MARTIN, President.....Dallas
DR. EARL D. CRUTCHFIELD, President-Elect.....Galveston
DR. R. E. BARR, Vice-President.....Orange
DR. DAVIS SPANGLER, Secretary.....Dallas

1. *Cancer of the Breast.*
   Drs. I. L. McGlasson and C. F. Lehman.....San Antonio
2. *Symposium on "The Roentgenological Evaluation of the Dental Pulp."*
   Dr. Dalton Richardson.....Austin
   Discussion opened for
   The Dentist, by Dr. Ernest A. Morris, Houston.
   The Surgeon, by Dr. D. S. Wier, Beaumont.
   The Internist, by Dr. M. L. Graves, Houston.
   The Radiologist, by Dr. J. M. Martin, Dallas.
3. *Radiography of the Accessory Sinuses and Mastoids.*
   Dr. E. C. Samuel.....New Orleans
4. *Halogenated Phthalein Compounds in the Diagnosis of Diseases of the Gall-Bladder.*
   Dr. Gibbs Milliken.....Houston
5. *Roentgen-Ray Treatment of Uterine Myomata and Menorrhagia.*
   Dr. C. P. Harris.....Houston
6. *Non-malignant Uterine Neoplasms.*
   Dr. O. L. Norsworthy.....Houston
7. *Radiation for the Control of Fibro-Myomata of the Uterus.*
   Dr. J. B. Johnson.....Galveston
8. *Roentgen Therapy of Uterine Carcinoma.*
   Dr. R. T. Wilson.....Temple
9. *Some Radiation Problems in Dermatalogy.*
   Dr. R. H. Crockett.....San Antonio
10. *The Radiologist Should be a Graduate in Medicine.*
    Dr. B. A. Fowler.....Brownwood

EVENING SESSION AND BANQUET.

11. *Radiology in the Infant and the Child.*
    Dr. W. W. Wasson.....Denver, Colorado
12. *Stimulation and Immunity in Radiotherapy.*
    Dr. A. U. Desjardins.....Rochester Minnesota

PROGRAM TEXAS RAILWAY SURGICAL AND HYGIENICAL ASSOCIATION.

May 24, Hall No. 4, Banquet Room, Municipal Auditorium.

DR. A. PHILO HOWARD, President.....Houston
DR. M. W. SHERWOOD, Vice-President.....Temple
DR. ROSS TRIGG, Secretary.....Fort Worth

1. *President's Address.*
   Dr. A. Philo Howard.....Houston
2. *Arthritis Deformans: Report of Case with Medico Legal Aspect.*
   Dr. I. N. Suttle.....Corsicana
3. *First Aid and After Treatment of Minor Injuries.*
   Dr. D. A. York.....Del Rio
4. *Spinal Injuries and Abnormalities.*
   Dr. Tom Bond.....Fort Worth
5. *The Relationship Between Members of the Hospital Association and the Railway Surgeon.*
   W. E. Williams, Manager Department of Personnel, M. K. & T. Railway....St. Louis
6. *Treatment of Fractures of the Jaw.*
   Dr. A. E. Chace.....Texarkana
7. *Examination of the Injured Patient.*
   Dr. G. V. Brindley.....Temple
8. *Observations on the So-Called Traumatic Hernia.*
   Dr. T. L. Lauderdale.....Ranger
9. *Should a Railroad Hospital Maintained Primarily for Employees Treat Private Patients for Hire?*
   Dr. R. H. McLeod.....Palestine

PROGRAM TEXAS FEDERATION FOR HEALTH EDUCATION[1].

May 24, 9:00 a. m., Hall No. 1, Main Auditorium, Municipal Auditorium.

DR. C. W. GODDARD, President.....Austin
DR. J. M. FRAZIER, First Vice-President.....Belton
MISS CORNELIA MCKINNEY, Second Vice-President.....Huntsville
MRS. L. E. LEDBETTER, Secretary-Treasurer.....Austin

1. *Symposium on Curricula and Organization of Health Programs for Universities and Colleges.*
   Members of the committee, Mr. H. H. House, A. & M. College; Mr. T. H. Shelby, University of Texas; Dr. S. R. Warner, Sam Houston Teachers' College; Dr. Minnie Maffett, S. M. U.; Dr. W. O. Talbot, State Dental Association; Prof. E. W. Steel, A. & M. College; Miss Anna Hiss, University of Texas; Dr. P. W. Horn, West Texas School of Technology, and Dr. G. F. Winfield, Lon Morris College.
2. *Symposium on Curricula and Organization of Health Programs for Academies and High Schools.*
   Members of the committee, Miss Mary Jo Popplewell, State Department of Education; Miss Jessie Harris, State Department of Education; Dr. A. H. Flickwir, Texas Association of Sanitarians; Prof. R. G. Upton, Stephen F. Austin State Teachers' College; Dr. Colby D. Hall, Dean, Texas Christian University; Mr. B. B. Cobb, Organization of School Superintendents; Dr. J. V. Brown, President, San Marcos Baptist Academy; Dr. W. P. Delafield, State Dental Association, and Dr. W. A. Buice, Baylor University.
3. *Symposium on Curricula and Organization of Health Problems for Elementary Schools.*
   Members of the committee, Miss L. Jane Duffy, State Board of Health; Mrs. C. E. Maddocks, Parent-Teacher Association; Mrs. Maggie W. Barry, A. & M. College; Dr. W. B. Sharp, Medical Branch, University of Texas; Miss Jeanie Pinckney, University of Texas; Miss Pansy Nichols, Texas Public Health Association; Mrs.

[1] During the Meeting the House of Delegates of the State Medical Association will be called to order, for the purpose of receiving a medal from the National Committee on Prisons and Prison Labor, for services rendered through the Texas Committee on Prisons and Prison Labor.

Elsbeth Vaughn, Red Cross; Dr. W. H. Scherer, State Dental Association, and Mr. H. T. Hitch, Y. M. C. A.

4. *Symposium on Curricula and Organization of Health Programs for Rural Schools.*

Members of the committee, Mrs. Noyes Smith, Chairman, Parent-Teacher Association; Miss Mary Gearing, University of Texas; Miss Annie Gabriel, State Organization of Public Health Nursing; Dr. Jessie Louise Herrick, C. I. A., Denton; Miss Beulah Harris, North Texas Teachers College, Denton; Mr. W. H. Cousins, Pharmaceutical Association; Mr. V. M. Ehlers, Texas State Board of Health; Miss Mary Kennedy, American Red Cross, and Mr. L. D. Borden, Rural Division, State Department of Education.

5. *Reports of Committees.*
Discussion of Same.

EVENING SESSION, ROUND TABLE DISCUSSION.

6. *Short Talks, Not to Exceed Ten Minutes, by One Person from Each Member Organization.*
7. *General Discussion.*

MEDICINAL REMEDIES

NEW AND NONOFFICIAL REMEDIES.

Hoffman's Non-Nutritive Nut Flour.—A preparation prepared from Tagua palm nuts, composed chiefly of unassimilable carbohydrates (mannanas). This product is used as a means of filling out restricted diets. It is a non-nutritive food substance used to give bulk to foods thus serving to satisfy hunger without furnishing nourishment. Efficiency Products Co., Somerville, N. J.—*Jour. A. M. A.*, March 20, 1926.

Carbon Tetrachloride-Mulford.—A brand of carbon tetrachloride-U. S. P. It is marketed in the form of capsules containing, respectively, 0.3 cc., 1 cc. and 3 cc. H. K. Mulford Co., Philadelphia.—*Jour. A. M. A.*, March 20, 1926.

Ragweed Combined Pollen Antigen-Lederle.—For a description of the method of preparation and the form of marketing, see New and Nonofficial Remedies, 1925, p. 287. Lederle Antitoxin Laboratories, New York.—*Jour. A. M. A.*, March 20, 1926.

PROPAGANDA FOR REFORM.

Report of the Council on Pharmacy and Chemistry.—During the past year, the Council has carried forward its work of informing the medical profession in regard to proprietary medicines which physicians are importuned to use. The work of this body of trained men who labor untiringly and without remuneration in the cause of rational and scientific medicine deserves wider recognition and acceptance. It will receive this when physicians recognize more generally the fact that those who compose the Council have the needed specialized training to enable them, better than the average physician, to form a correct estimate of the many new medicaments appearing each year. The Council publishes the annual New and Nonofficial Remedies which describes the medicinal preparations that are acceptable to the Council. Products not accepted are reported on in the annual reports of the Council and these reports are collected in the Propaganda for Reform in Proprietary Medicines. In addition the Council publishes the Epitome of the U. S. Pharmacopeia and National Formulary and the book Useful Drugs.

While the Council has brought about a revolution in the field of therapeutics, much remains to be done. The success of the further endeavors of the Council will depend largely on the support which is given by the rank and file of the medical profession. Support can be most efficiently given by physicians and with full justice to themselves and their patients by confining their use of proprietary medicines to those which have been found acceptable for inclusion in New and Nonofficial Remedies.—*Jour. A. M. A.*, March 20, 1926.

Report of the A. M. A. Chemical Laboratory.—During the year, the Laboratory has been engaged largely in evaluating synthetics and drug preparations for the Council on Pharmacy and Chemistry and in analyzing nostrums for the Bureau of Investigation. The work which the laboratory does for the Council on Pharmacy and Chemistry is becoming increasingly involved and difficult. Similarly the analysis of patent medicines for the Bureau of Investigation is more complicated than formerly. The Laboratory also carries out independent investigations: thus it has published a report on the quality of the market supply of cinchophen, a study of bismuth compounds and a study of liquid petrolatum-agar mixtures. The value of a chemical laboratory maintained by the American Medical Association is thoroughly demonstrated when comparisons are made between conditions existing in this and other countries. While abroad certain proprietaries are claimed to have this or that chemical structure, these claims are not made for them here when their composition has been shown to be otherwise.—*Jour. A. M. A.*, March 20, 1926.

Ceanothyn Not Acceptable for N. N. R.—Ceanothyn is the name applied by Flint, Eaton and Co., Decatur, Ill., to a liquid extractive prepared from the bark of the root of Ceanothus americanus (Jersey tea). Ceanothyn was recommended "for the control of hemorrhage, in surgical procedure, postpartum hemorrhage, pulmonary hemorrhage, epistaxis, and disturbed conditions during the menopause." The Council on Pharmacy and Chemistry found Ceanothyn unacceptable for New and Nonofficial Remedies: (1) because its composition is uncertain, (2) because no tests are furnished to control its identity and uniformity, and (3) because no satisfactory evidence for its therapeutic value had been submitted.—*Jour. A. M. A.*, March 20, 1926.

The Defeat of the Streptococcus in Measles, Erysipelas and Puerperal Sepsis.—When the announcement was made that the Drs. Dick has shown that scarlet fever is a disease similar to diphtheria in that the streptococcus elaborates a toxin which is the causative agent, medical philosophers predicted that other investigators would soon reveal similar causative agents for related diseases. It appears likely that these predictions are to be realized within the current year. Now Ferry and Fisher report that they have elaborated a skin test for measles with toxin prepared from an organism found in the blood of patients suffering with this disease. Experiments are also being made with streptococci associated with erysipelas and puerperal sepsis and preliminary reports indicate the possibility of similar success.

Moreover other organisms than the streptococcus are being studied with relation to toxin production, notably the staphylococcus and more recently the tubercle bacillus. If these investigations are confirmed, it may well be that the present decade will pass into history as the one that saw the streptococcus defeated by medical science.—*Jour. A. M. A.*, March 27, 1926.

Curay Light Applicators.—The source of light in a Curay lamp is an incandescent tungsten filament

enclosed in a glass bulb. When used in the Curay apparatus, the lamp is operated on a higher current than its normal rating carries and therefore the life of the lamp is much reduced. The spectral energy distribution of the Curay lamp is mostly emitted in the form of heat and but a small fraction of the energy is emitted as ultraviolet rays. As compared with the quartz mercury arc lamp, the amount of ultraviolet rays emitted by the Curay lamp is insignificant.

The light of the Curay lamp is not comparable with sunlight for not only is the total amount less than that of sunlight, but a much smaller proportion of the energy is in the form of ultraviolet rays. Further the lamp has a glass bulb which strongly absorbs the ultraviolet rays given off by the filament. An exposure of the skin in actual contact with the quartz rod "applicator" supplied with the Curay lamp for one-half hour showed no ultraviolet erythema; an exposure of three and one-half minutes at a distance of one meter with a quartz mercury vapor lamp produced a marked erythema. The Curay Company supplies letters containing an account of supposed "cures" of colds and bacterial infections, but these concern uncontrolled experiments.—*Jour. A. M. A.*, March 27, 1926.

The Kromayer Lamp.—According to experiments made by the manufacturer, Hanovia Manufacturing Co., the Kromayer lamp permits no radiation shorter than 2,000 angström units or longer than 14,000 angström units. Of the total radiation emitted, approximately 65 per cent falls in the ultraviolet field. The apparatus is dependable but no assertion can be made as to the properties of the rays. The company has collected the reports of results of investigations with the lamp, and supplies the references.—*Jour. A. M. A*, March 27, 1926.

Gonolin and Luesan.—These two products are manufactured by the Horovitz Biochemic Laboratories Company, New York, A. S. Horovitz, president of the Horovitz Biochemic Laboratories Company has been referred to in connection with the asserted cancer cure "Autolysin." Later he appears to have been largely responsible for the "Proteogens" which the Council on Pharmacy and Chemistry declared inadmissible to New and Nonofficial Remedies. Subsequently the company of which A. S. Horovitz is president, prepared a line of "Protein Substances" similar to the "Proteogens," each one being claimed to be more or less specific against a given disease or condition. The claims advanced for Gonolin and Luesan bear a striking similarity to those made for the discredited "Proteogens."—*Jour. A. M. A.*, March 27, 1926.

Acacia and Intravenous Injections.—The harmfulness of acacia in the treatment of shock and hemorrhage has been pointed out repeatedly. The changes resulting from the use of this otherwise inert agent bear on the many sided question of intravenous therapy. The investigation of Hanzlik have shown the wide changes which occur in the blood and tissues. Confirmatory of the work of Hanzlik, it was found that the blood after injection of acacia is definitely altered. The danger of intravenous injection of acacia has been fully demonstrated. The warning against acacia may be extended to other blood substitutes and in fact to intravenous injections in general.—*Jour. A. M. A.*, Feb. 20, 1926.

Inner-Clean.—Inner-Clean (Inner-Clean Manufacturing Company, Los Angeles) is claimed to assist nature and "Progressively and Thoroughly Cleanses and Rejuvenates Relaxed, Flabby Intestines." Those who order Inner-Clean by mail are sent in addition to the preparation, a leaflet advertising the "Mucus-less-Diet Healing System." The "system" apparently is a book which sells for $1.50. Examination of Inner-Clean in the A. M. A. Chemical Laboratory showed the product to be essentially a coarse herb mixture (with a little sand) consisting mainly of senna leaves.—*Jour. A. M. A.*, Feb. 20, 1926.

Administration of Mercury and Arsphenamine.—The arsphenamines are so reactive that they may not be combined in solutions with mercury salts for intravenous administration. Alternation of drugs, rather than simultaneous administration, is the present trend of antisyphilitic medication. Mercury compounds administered intravenously should be given more frequently and over a longer time than is permissible for the administration of arsphenamine in sufficiently large doses. Furthermore, it is generally advisable not to give intravenous mercury medication, but to employ the forms such as the insoluble salts (or certain soluble salts) intramuscularly or to apply inunctions.—*Jour. A. M. A.*, Feb. 20, 1926.

Pertussin.—The reason the medical profession should refuse to prescribe Pertussin is not primarily because the stuff is advertised to the public, but that it is a product of indefinite composition, marketed under a nondescriptive, therapeutically suggestive name, and is exploited with misleading claims. Pertussin is one of many proprietaries which has been popularized through the uncritical testimonials given the physician.—*Jour. A. M. A.*, Feb. 20, 1926.

Burgess-Johnson-Webb Syndicate of Frauds.—On Feb. 11, 1926, the Postmaster General issued a fraud order against a group of medical mail-order swindles conducted by Ward H. Webb, W. W. Burgess, and Linn D. Johnson, who conducted the Gray Advertising Agency, Kansas City, Mo. As the Dale Laboratories they sold "Virex," a fraudulent cure for deafness, a fake cure for "stomach trouble"—"Dale's Wonderful Stomach Remedy"—and a kidney cure humbug, "Dale's Kidney Prescription." Under the trade name of King's Laboratories they sold a pyorrhea cure swindle. As the Hilton Laboratories they sold "Hilton's Vitamines to Make You Fat." As Warren Laboratories they sold "Clear-Plex" and other fake beauty preparations. As the Webb Chemical Co. they sold a fraudulent cure for asthma, the "Famous Webb Combination Prescription." As Walker Institute they sold "Walker's Prostate Specific," exploiting those with prostate trouble. As the Restorex Company they sold "Restorex Tablets," a weak-man remedy, while they sold a fake rheumatism cure—the "3-Way Combination Treatment" under the name of the 3-Way Chemical Company. These are but a few of the twenty-seven schemes operated through the mails by this group. The solicitor's memorandum shows that the preparations were made for them by George A. Breon & Co., of Kansas City. It was brought out that Burgess, Johnson and Webb had no medical training, and none of the "laboratories" were laboratories in fact.—*Jour. A. M. A.*, Feb. 27, 1926.

Sanocrysin.—In spite of the disappointing results from the use of "Sanocrysin" in animal tuberculosis in the careful experiments carried out for the Hygienic Laboratory by Theobald Smith, Wm. H. Park and E. C. Schroeder, it is possible that some renewal of interest may arise as a result of recent papers by European physicians on the use of sodium-gold thiosulphate in human cases of tuberculosis. One naturally views with doubt the value of these reports, since these physicians have discarded the theories originally advanced and, to a large extent also, the use of the antitoxic serum. They thus place the substance in the category of the gold salts used in the therapy of tuberculosis with which a long record of varied experiences is available. It is possible that the use of gold may have some value, but there is no evidence at hand today; hence the wisdom of Amer-

ican physicians in awaiting definite proof of action in animal tuberculosis before using it in the human disease will save much suffering and distress.—*Jour. A. M. A.*, Feb. 13, 1926.

Florence Formula.—Florence Formula is another of the numerous alleged cures for hay fever and asthma sold on the mail-order plan. It is put out by the Florence Product Corporation, Kansas City, Mo. The A. M. A. Chemical Laboratory reports that the "Florence Formula for Asthma, Bronchitis, Catarrh, Short Breath, Hay Fever and Allied Ailments" consisted of mottled, grayish white tablets and that each tablet contained the equivalent of approximately 0.18 Gm. of potassium iodide and 0.0007 Gm. of arsenic trioxide (equivalent to one minim of "Fowler's Solution"). From this analysis it is seen that the Florence Formula has essentially the same composition as another Kansas City medical mail order humbug "Asthma Tabs" examined in the Association's Laboratory.—*Jour. A. M. A.*, Feb. 6, 1926.

National Health Service.—Some time ago the United States Public Health Service issued a warning that the "National Health Service," Washington, D. C., was attempting to capitalize the research work done by the United States government and to confuse the public into believing that it was in some way identified with the Public Health Service of the government. The offices of the National Health Service are no longer in Washington, D. C., but in New York City. The concern is either operated from two addresses—17 West Sixtieth Street and 70 Fifth Avenue—or there are two concerns of the same name. From the first address a so-called "Book of Health," a urinalysis "health service" and a line of fad foods are sold. From the Fifth Avenue address letters are sent to industrial concerns urging them to purchase "a remarkable discovery for kidney disease, which has produced unbelievable results even in extreme cases where all other means have failed." An analysis of Rensano made in the A. M. A. Chemical Laboratory confirmed by pharmacologic tests carried out at the University of Illinois showed that Rensano is essentially milk sugar with a minute amount of alcohol. This inert and therapeutically worthless product is exploited to individuals and industrial plants with the suggestion that working men suffering from such serious conditions as nephritis and diabetes should be given this product in lieu of medical attention.—*Jour. A. M. A.*, Feb. 13, 1926.

Formaldehyde Fumigators.—The term "solidified formaldehyde" is used loosely, sometimes denoting dry paraformaldehyde but more generally denoting a solidified mass of soap, tallow, or such substance with formaldehyde. When paraformaldehyde is heated formaldehyde and some sublimed paraformaldehyde are given off. The amount of formaldehyde yielded depends on a number of conditions. In the case of solidified formaldehyde, the concentration of the formaldehyde and the amount of vapor evolved must be known to judge its efficiency. Fumigation as a means of preventing the spread of disease is regarded as far less important than formerly.—*Jour. A. M. A.*, Feb. 13, 1926.

Protein Extracts Diagnostic-P. D. & Co.—In addition to the products listed in New and Nonofficial Remedies, 1925, p. 289, the following have been accepted: Aster Pollen Protein Extract Diagnostic-P. D. & Co.; Barnyard Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Bermuda Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Burweed Marsh Elder Pollen Protein Extract Diagnostic-P. D. & Co.; Chestnut Pollen Protein Extract Diagnostic-P. D. & Co.; Cocklebur Pollen Protein Extract Diagnostic-P. D. & Co.; Common Ragweed Pollen Protein Extract Diagnostic-P. D. & Co.; Corn Pollen Protein Extract Diagnostic-P. D. & Co.; Cosmos Pollen Protein Extract Diagnostic-P. D. & Co.; Crab Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Dahlia Pollen Protein Extract Diagnostic-P. D. & Co.; Dandelion Pollen Protein Extract Diagnostic-P. D. & Co.; Halberd-Leaved Orache Pollen Protein Extract Diagnostic-P. D. & Co.; Giant Ragweed Pollen Protein Extract Diagnostic-P. D. & Co.; Indian Hair Tonic Pollen Protein Extract Diagnostic-P. D. & Co.; Johnson Grass Pollen Protein Extract Diagnostic-P. D. & Co.; June Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Maple Pollen Protein Extract Diagnostic-P. D. & Co.; Marigold Pollen Protein Extract Diagnostic-P. D. & Co.; Orchard Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Plantain Pollen Protein Extract Diagnostic-P. D. & Co.; Prairie Sage Pollen Protein Extract Diagnostic-P. D. & Co.; Rose Pollen Protein Extract Diagnostic-P. D. & Co.; Rough Marsh Elder Pollen Protein Extract Diagnostic-P. D. & Co.; Sage Brush Pollen Protein Extract Diagnostic-P. D. & Co.; Western Ragweed Pollen Protein Extract Diagnostic-P. D. & Co.; Western Waterhemp Pollen Protein Extract Diagnostic-P. D. & Co.; Wheat Pollen Protein Extract Diagnostic-P. D. & Co.; White Clover Pollen Protein Extract Diagnostic-P. D. & Co.; White Goose Foot Pollen Protein Extract Diagnostic-P. D. & Co.; Willow Pollen Protein Extract Diagnostic-P. D. & Co.; Wormwood Sage Pollen Protein Extract Diagnostic-P. D. & Co.; Wormwood Sage Pollen Protein Extract Diagnostic-P. D. & Co.; Yarrow Pollen Protein Extract Diagnostic-P. D. & Co.; Yellow Dock Pollen Protein Extract Diagnostic-P. D. & Co. Parke, Davis & Co., Detroit.

NEWS

Medical Arts Building to be Constructed at Wichita Falls.—Work is expected to begin at an early date on the eleven-story Medical Arts Building to be erected at the corner of Eighth and Lamar streets, Wichita Falls. The building will cost approximately $1,000,000 and will occupy a ground space of 100x150 feet. This building is being constructed by the Western Medical Arts Building Corporation of Delaware.

Fort Worth Chiropractor Convicted.—H. Gordon Hargett was convicted of unlawful practice of medicine in Judge Seward's court at Fort Worth on March 10. The usual defense that he was not practicing medicine but only adjusting was made. He also claimed that he made no charge for the treatment mentioned in the complaint, but admitted receiving money from the patient's husband after the treatment had been given.

Corpus Christi Medical Arts Building Under Construction.—Ground has been broken for the five-story Medical Arts Building to be erected on Peoples street, Corpus Christi. The building will be of reinforced concrete construction, with ornamental stone and maroon colored brick. All interior walls will be of smooth plaster. The entire building with the exception of the ground floor will be occupied by physicians or members of allied professions.

Medical Arts Building for Abilene.—According to the *Dallas News*, a contract has been let for the erection of a four-story brick building at the northeast corner of North Third and Cedar streets, Abilene. This building will cost from $40,000 to $50,000 and will be a modern building in every respect. The second floor will be devoted entirely to office space for physicians and dentists, while the third floor will house a clinic, including a laboratory.

Negro Hospital for Houston.—An anonymous gift of $75,000 has been received from a white donor,

to be applied on the building of a modern hospital for the negroes of Houston. This gift is to be supplemented by one from the city. The property upon which this hospital is to be built has already been purchased and consists of two city blocks. I. M. Terrell, who has for 33 years been connected with the negro public schools of Fort Worth, has been made head of this colored hospital at Houston. It is understood that the hospital will benefit from the Community Chest, and will receive aid and counsel from the Harris County Medical Society.

Fort Worth "Cancer Specialist" Pleads Guilty to Violation of Medical Practice Act.—Mrs. Addie Wise of Fort Worth pled guilty to charges of violating the Medical Practice Act on March 12, according to the *Fort Worth Star-Telegram.* She was fined $50 and one day in jail. This woman has been widely advertising a cancer cure, "Addawise," for many years. She was charged with having administered this cancer treatment to a patient without filing any license to practice medicine in Tarrant County. Mrs. Wise was acquitted several weeks ago on a similar charge.

American Health Congress will meet at Atlantic City, May 17 to 22, 1926. The following organizations will participate in this Congress:

The Biennial Nursing Convention of the American Nurses Association, National Organization for Public Health Nursing, National League of Nursing Education, American Heart Association, American Public Health Association, American Red Cross, American Social Hygiene Association, American Society for the Control of Cancer, National Committee for Mental Hygiene, National Committee for the Prevention of Blindness, National Tuberculosis Association, U. S. Children's Bureau, U. S. Public Health Service, Women's Foundation for Health, American Child Health Association and the Conference of State and Provincial Health Authorities of North America.

The convention headquarters will be at the Steel Pier. A very attractive and instructive program has been prepared and an attendance of at least 7,000 is expected.

SOCIETY NEWS

Bell County Medical Society met at Belton, March 3, with a good attendance. The following scientific program was enjoyed:

"Operative Cystoscopy," Dr. C. M. Simpson of Temple; "Perforating Ulcer of the Duodenum," Dr. L. W. Pollok of Temple; "The Importance of Classifying Mastoiditis From the Standpoint of Prognosis and Complications," Dr. J. M. Woodson of Temple; "The Treatment of Hypothyroidism," Dr. A. C. Scott, Jr., Temple; "Consideration of Cancer of the Uterus," Dr. W. W. Sherwood of Temple.

Bexar County Medical Society met March 11, with seventy-five members and three visitors in attendance.

The guest of the evening, Mr. Walter P. Napier, gave a splendid address on the United States Supreme Court. The function of that august body was explained in detail and a number of famous test cases decided by that court while John Marshall, the greatest of Chief Justices, had held that exalted position, were recited. The powers of the Supreme Court should not be curtailed in the least as that institution acts as a bulwark against unscrupulous politicians.

Dr. Virginia Hale read a paper on "Recent Developments in the Etiology, Diagnosis and Treatment of Scarlet Fever."

Dr. Mary C. Harper opened the discussion. She stated that the epochal work of the Dicks on scarlet fever antitoxin now enabled the physician to prevent much of the loss of life, due to the severe nephritis which often follows even mild cases of scarlet fever. Such cases are often so atypical as to be unrecognized until after severe and even fatal complications have ensued.

Dr. J. A. Nunn stated that the Dick test is as fool-proof as any such test can be made. Cases treated with scarlet fever antitoxin are less apt to develop serious complications.

In closing, Dr. Hale stated that the most reliable prescription of scarlet fever antitoxin was that prepared by Squibbs, which not only had passed the Scarlet Fever Commission, but likewise the United States Public Health Service Laboratory.

Dr. J. E. Coyle read the history of two cases of fracture of the femur, both having been operated by Dr. J. W. Goode, and treated with a Palmer band. The results as shown by the radiograms were excellent.

It was announced that Dr. Sigmund Burg, one of the oldest and most respected members of the society expected to leave soon for the Holy Land to practice medicine. The Society presented Dr. Burg with a traveling bag as an evidence of the high regard in which he was held, and Dr. D. Berry, a lifelong friend of Dr. Burg, made the speech of presentation. Dr. Burg thanked the Society for the gift and for the good will accompanying it, stating that in going to Jerusalem he was but pursuing an ideal. He hoped to be of assistance there during the great influx of people, when there would be a dearth of physicians.

The Secretary then read a paper written to Dr. Burg, in which the Society had made him an Honorary Life Member.

A committee was appointed to entertain members of the A. M. A. who would pass through San Antonio on their way to a tour of Mexico after the A. M. A. meeting in Dallas.

Cooke County Medical Society met March 9, at the home of Dr. and Mrs. H. B. Harrell of Gainesville.

Scientific papers were read by Drs. D. M. Higgins, E. C. Mead and J. M. Wattam.

After the scientific program, delightful refreshments were served to the following: Drs. H. B. Harrell, D. M. Higgins, J. M. Wattam, C. B. Thayer, O. E. Clements, J. L. Griffin, C. L. Stocks, I. N. Roberson, L. W. Kuser, E. C. Mead, J. G. Jennett and Gilbert.

Dallas County Medical Society met February 26, at Stoneleigh Court, with 84 members and two visitors present.

Dr. T. J. Calhoun reported a case of pemphigus, which was discussed by Dr. Bedford Shelmire.

Dr. Edward White reported a case of papillary carcinoma of the bladder.

Dr. Roy Keller reported a case of aneurism of the aorta previously diagnosed as fatty degeneration of the heart. This case was discussed by Dr. G. L. Carlisle. Dr. Keller also reported a case of Vincent's angina, which was discussed by Drs. Edward White and B. H. Griffin.

Mr. Frank Reedy gave a description of the trip to Mexico which he is to conduct immediately following the A. M. A. meeting in April.

Dr. Ben L. Schoolfield read a paper on "The Present Status of Arthroplasty," which was illustrated with lantern slides. This paper was discussed by Dr. W. B. Carroll.

Dr. W. B. Carroll read a paper on the "Arthroplasty of the Hip and Knee With Motion Picture Demonstration," the discussion of which was opened by Dr. Ben L. Schoolfield.

Dr. Oscar M. Marchman read a paper on "Malignancy as Found in the Eye, Ear, Nose and Throat

Clinic, with Report of Cases." A discussion of this paper was opened by Dr. L. M. Sellers.

Doctors Dan Brannin, Thomas Matt Kirksey, J. Sims Norman, James William Bass and J. J. Seale were elected to membership.

After the scientific session was over delicious refreshments were served to those present.

Dallas County Medical Society met March 11, with eighty members present.

Dr. H. L. Cecil read a paper on "Cystoscopic Removal of Ureteral Calculi," which was discussed by Dr. G. R. Williams.

Dr. J. M. Martin read a paper on "*X*-Ray Treatment of Hyperthyroidism," which was discussed by Drs. C. M. Grigsby, J. B. Smoot and G. L. Carlisle.

Dr. M. M. Carr read a paper on "The Blood Picture as an Aid in the Diagnosis of Ruptured Ectopic Gestation," which was discussed by Dr. C. C. Nash.

Dr. C. M. Grigsby reported a case of coronary thrombosis, which was discussed by Drs. G. L. Carlisle, J. B. Smoot, R. B. Giles and R. M. Barton.

Dr. R. B. Giles reported a case of visceral syphilis, which had been treated for a number of years as gallbladder trouble. The gallbladder was visualized very distinctly by the Graham method. The blood and spinal fluid Wasserman tests were both positive.

Denton County Medical Society met March 11, in the office of Drs. M. L. Martin and M. D. Fullingim of Denton.

Besides the local doctors, the following out-of-town physicians were present: Drs. J. E. Fleming of Pilot Point, J. H. Allen of Justin and R. E. Lester of Roanoke.

El Paso County Medical Society met February 22, with 32 members and two visitors present.

Dr. C. H. Mason presented two cases of juvenile tinea capitis, which had been epilated by the *x*-ray. These cases were discussed by Drs. Turner and Smith.

Captain Orbison presented an early and an advanced case of paresis, after which he read an excellent paper, discussing the diagnosis and clinical course of paresis and outlining a method of treatment. His paper was discussed by Drs. K. D. Lynch. E. D. Strong, Smith and Turner.

Falls County Medical Society met at Marlin, March 15, with the following members in attendance: Drs. H. P. Currie, F. H. Shaw, Oscar Torbett, J. H. Mitchell, J. W. Torbett, E. P. Hutchings, M. A. Davidson, S. P. Rice, Howard Smith, T. A. York, A. C. Hornbeck, J. H. Barnett and N. D. Buie.

The following visitors were present: Doctors J. B. Barnett of Thornton, Green of Crosby, W. J. Cummings of Alvarado, Watts of Marlin and J. E. Green of Waco.

Dr. Howard Smith read a paper on "Intestinal Obstructions," which was discussed by Dr. J. B. Barnett of Thornton and Dr. Watt of Marlin.

Drs. J. W. Torbett and A. C. Hornbeck read a paper on "Clinical Observations in the East."

Grayson County Medical Society met March 9, at Sherman.

Dr. A. M. McElhannon of Sherman, read a paper on "Progressive Muscular Atrophy."

Dr. G. F. Brown of Sherman, read a paper on "Diagnosis of Aortic and Mitral Murmurs."

A number of interesting case reports were made by several of the doctors present.

Harris County Medical Society met February 20.

Dr. Ghent Graves read a paper on "Hypoderma Lineatum in Homine." The patient was a youth who had lived in Southeastern Texas his entire life. He complained of tender swellings in the subcutaneous tissues. The general physical examination was negative. There were widely distributed, small, tender, red swellings of the cutaneous surface, which showed fluctuation. There was an eosinophilia of 37 per cent. During the period of observation the patient ran a mild fever and had gastrointestinal disturbances. Eventually, a small white larva was extruded from one of the swellings, which was identified as a larval form of hypoderma lineatum. Treatment consisted in the administration of santonin and the injection of chloroform into and around the lesion. These measures brought considerable relief, though occasional new lesions appeared.

Dr. William Strozier said he had encountered one case of this type in Texas.

Dr. J. C. Michael mentioned a case he had seen in which Dr. E. L. Lancaster had removed a larva. He had talked with oil operators who had been victims of this disease while in Mexico. A few reports of larva have been found in literature but the condition is rare in this country.

Dr. H. L. D. Kirkham read a paper on "Scope and Limitations of Plastic Surgery." He stated that plastic surgery is an old art which in recent years has been confused with facial or cosmetic surgery, a minor part of the subject. It embraces the restoration of lost tissue and the repair of deformities, both functional and cosmetic results being sought. In nearly all cases cosmetic improvement can be obtained. The control of the patient is essential to good results because most plastic cases require several operations in order to achieve the best results. The end-results in war injuries were usually better than those obtained in private cases because of this factor.

Dr. John T. Moore opened the discussion by saying that he thought there was a distinct niche for the trained plastic surgeon and that he had a very difficult field of surgery.

The paper was further discussed by Drs. S. C. Red, J. E. Hodges and J. H. Foster.

Dr. C. C. Cody read a paper on "Relationship of Retrobulbar Neuritis to Posterior Sinusitis." The etiologic factors involved are (1) mechanical, (2) toxic, and (3) intermediate. Under mechanical factors may be mentioned trauma: under toxic. focal infections, syphilis and various drugs; and the intermediate group is a blend of the other two. Approximately 75 per cent of cases of retrobulbar neuritis follow nasal sinusitis, usually of the sphenoid or ethmoid. The pathological mechanism comprises either direct extension, hyperplasia, or a combination of the two. Headache and failing vision are common symptoms. Enlargement of the turbinates is a constant finding. The Roentgen-ray examination usually furnishes valuable information. The treatment rests upon two principles, ventilation and drainage.

Dr. William Lapat opened the discussion by stating that the diagnosis of retrobulbar neuritis due to sinusitis must be made by exclusion. A certain proportion of cases are apparently due to a small optic canal, the diameter of which largely determines the prognosis.

Dr. F. J. Slataper remarked that the diagnosis of the condition was mainly by inspection. The eyegrounds show little change. Eradication of the cause of this condition is, of course, of paramount importance.

Dr. John T. Moore stated that the subject had many points of contact with brain surgery. It should be more generally known that blindness may be caused by these infections.

Dr. William Strozier believed that many of the cases of retrobulbar neuritis were self-limited and

that operation was not indicated until the source and nature of the disturbance had been determined beyond a doubt.

Dr. J. H. Foster stated that although it was true that such cases accompanying acute infections do sometimes clear up without interference, some chances must be taken in the treatment of the condition. In case of doubt, the ethmoid and sphenoid sinuses should be opened.

Dr. B. W. Turner mentioned several cases of retrobulbar neuritis due to genito-urinary infections.

Dr. C. C. Cody, in closing, stated that local operative intervention was necessary in most cases and was justifiable even though done for exploratory purposes when such an important function as the vision was in danger.

Harris County Medical Society met February 27, with 34 members present. The President, Dr. James Greenwood, stated that it was his opinion that the dissolution of the Harris County Medical Society incorporation had no effect upon the relationship of the Society to the State Medical Association. A motion was carried that action on the participation of Harris County Society in the Publicity Campaign of the State Association be deferred and that Dr. Holman Taylor be invited to address the Society on that subject.

Drs. H. J. Ehlers, F. E. Dye, George Sladcyzk and Neal Davis were elected to membership.

Harris County Medical Society met March 6, with 87 members present.

Dr. A. C. Scott of Temple, ex-President of the State Medical Association, was requested to address the meeting. He stated that he was there in connection with his position as Chairman of the State Committee on Scientific Work. He believed that the forthcoming State meeting at Houston would be a success and was doing everything possible to promote the work of the scientific sections.

Dr. Holman Taylor addressed the Society on the matter of a Publicity Dinner. He sketched the early history of the Campaign and its more recent course, stating that the Campaign had been successful wherever tried and that the officials of the State Medical Association were desirous of obtaining the coöperation of the Harris County Medical Society in this Campaign. The methods of holding previous dinners were outlined, as well as the type of advertising matter that had been used in the Campaign.

After Dr. Taylor's address, Dr. E. F. Cook moved that "this body reiterate its former belief that it is not proper for it to indulge in any form of police work." The motion was seconded by Dr. E. L. Goar. The motion was then discussed by Drs. E. F. Cook, E. L. Goar, C. C. Green, F. J. Slataper. B. T. Vanzant, R. W. Knox, C. C. Cody, H. C. Haden, John T. Moore, S. C. Red and J. E. Hodges. The motion was carried by 45 to 16 votes.

Dr. Taylor was given a rising vote of thanks for his kindness in coming to Houston to address the Society.

Harris County Medical Society met March 6.

Dr. A. P. Howard reported a case of arthritis due to syphilis in a female patient, aged 42 years, who complained of pain in the left thigh and knee. She had never been pregnant and her second husband had died of aneurysm. Examination of the patient revealed no abnormalities and the reflexes were normal. The blood Wassermann was 4 plus. The symptoms ameliorated after two arsphenamin injections.

Dr. S. David stated that the lack of physical findings in the case reported was significant. He had seen a patient complaining of pain in one of the knee joints in whom x-ray picture showed a spur formation on the tibia. The Wassermann was negative, but after two salvarsan injections, the symptoms disappeared.

Dr. J. L. White read a paper on "Treatment of Urethral Stricture." He stated that most strictures were not due to gonorrhea but to chemical agents used in the treatment of that condition, such as silver nitrate, potassium permanganate, etc. The treatment varies according to the case and depends a great deal upon the complications present. Many of these cases are poor operative risks. The kidney function should be investigated prior to operation. The most important element in treatment is prophylaxis. Four cases were recited, illustrating various aspects of treatment.

Dr. W. O. Williams, in opening the discussion, stated that while he agreed in the main with the essayist, he did not believe that chemical agents were the usual cause of stricture, but considered gonorrhea as being the cause in most cases. Operation is occasionally required in these cases, but any stricture that fluid can pass can be entered with sounds by persistent effort. External urethrotomy was advised in some cases.

Dr. B. W. Turner stated that chemical agents were a very common cause of stricture and that gonorrhea alone does not cause it. For a number of years he had performed internal urethrotomy in such cases under local anesthesia.

The case was further discussed by Drs. J. M. Trible and J. Harold Turner.

Harris County Medical Society met March 13.

Dr. P. R. Denman reported a case in which he had done an arthroplasty of the knee-joint. The patient had been injured in 1917 and a year later developed osteomyelitis of the right tibia. After several unsuccessful operations, a disarticulation of the knee-joint was done. The extensor quadratus tendon was severed and the leg fully flexed so that the articular surfaces could be exposed daily to sunlight. The infection finally cleared up after two months of such treatment. The knee-joint was then restored and the patient had regained complete function, as was demonstrated by the patient who was present at the meeting.

Dr. Gibbs Milliken reported a case of polycythemia vera, in a patient, aged 68 years, who complained of an uncomfortable sensation over the upper right abdominal quadrant. In the last three or four months he had lost 35 pounds. There was moderate dyspnea and the patient had had three attacks of syncope in the last six years. Physical examination showed a red mucosa and the blood count showed 12,000,000 erythrocytes, 12,000 leukocytes and hemoglobin, 100 per cent plus. Treatment had consisted in the administration of benzol and radiation over the spleen. A reduction in red blood cells had followed, but was not permanent.

Dr. E. F. Cook opened the discussion by stating that he had seen only one case of this disorder in seventeen years. This patient had a blood count of 8,535,000 erythrocytes and 23,400 leukocytes. He thought the disease was probably due to an overproduction of red blood cells without a correspondingly increased destruction.

Dr. James Greenwood asked for the reason for the effect of benzol in these cases.

Dr. Milliken, in closing, stated that there was no increase in blood volume but an increased viscosity. Transitory attacks of syncope are due to overcrowding of the cerebral capillaries. Benzol was used because it had been shown to cause aplastic anemia among industrial workers exposed to it.

Dr. Gibbs Milliken also reported a case of myelogenous leukemia in a patient, aged 43 years, who was admitted complaining of a mass in the abdomen, first noted about two and one-half years

previously. The blood count showed 3,360,000 erythrocytes and 49,200 leukocytes. There were no myelocytes and the polynuclear leukocytes averaged 63 per cent. The patient developed a sudden chill with hemoptysis and death ensued. Autopsy revealed a greatly enlarged spleen weighing 12½ pounds, and a pneumonic consolidation of the lungs. The cause of death was pneumonia. Sections from the spleen showed scattered collections of closely packed myelocytes, and a liver section showed the same condition.

Dr. E. F. Cook opened the discussion, stating that such cases were difficult to diagnose. The white cell count was not high considering the autopsy findings. He believed that many leukemias were the result of toxins and mentioned a case following Vincent's angina and another following tonsillitis.

Dr. B. F. Smith thought that many leukemias were malignancies of the same type as lymphosarcoma.

Dr. J. C. Michael stated that when the skin showed leukemic infiltrations the histologic picture was the same as that recorded in the spleen in the case reported. The skin lesions sometimes precede the blood manifestations.

Dr. W. G. McDeed discussed the effect of *x*-ray therapy in the treatment of leukemias.

The case was further discussed by Drs. B. T. Vanzant and James Greenwood.

Dr. H. O. Nichols (Ph. D.), of Rice Institute, read a paper on "The Basis of Synthetic Chemistry." He discussed the fundamental methods employed by chemists in the synthesis of new drugs. After giving a brief outline of the history of the subject, he gave several illustrations such as the production of the newer local anesthetics, among which he mentioned procain and butyn.

Hidalgo County Medical Society met at Mission, March 11, with the following members present: Drs. J. G. Webb, J. W. Conard, J. R. Mahone, J. M. Doss, J. W. Jeffries, J. G. Whigham, E. L. McCalip, A. J. J. Austin, R. B. Kirkpatrick, F. E. Osborn, G. E. White, J. A. Miller, J. G. Harrison, C. J. Martin, T. R. Burnett and T. J. Caldwell.

Dr. G. E. White reported the case of a young man who had been previously presented to the society, with an enlarged submaxillary gland. A large stone had been removed from the gland.

Dr. R. B. Kirkpatrick was received by transfer from his county medical society at Paducah, Kentucky.

There was a general discussion of the effect of the Publicity Campaign and of the prosecution of illegal practitioners.

Lubbock-Crosby Counties Medical Society met February 23, at which time the following officers were elected for 1926: President, Dr. J. W. Rollo; Vice-President, Dr. M. C. Overton; Secretary-Treasurer, Dr. Allen T. Stewart, all of Lubbock.

The following doctors were elected to membership: Doctors J. F. Crawford, F. B. Malone, J. R. Lemmon, Nan L. Gilkerson and Herbert C. Maxwell.

Navarro County Medical Society met March 1, at Corsicana, with the following members present: Drs. W. D. Cross, T. A. Miller, R. C. Curtis, T. O. Wills, Sneed, W. W. Halbert, Love, W. C. Bristow, E. H. Newton, Russell, I. N. Suttle, M. L. Hanks, W. K. Logsdon, J. W. David, H. H. Panton, T. S. Slater, Homer B. Jester, H. R. McMullen, W. T. Shell, D. B. Hamill, D. B. Currie, T. B. Sadler, J. A. Jones and Houston. Dr. R. M. Barton of Dallas was present as a visitor.

Dr. R. M. Barton read a paper on "Heart Disease in Children."

Dr. W. W. Halbert read a paper on "Treatment of Eclampsia."

Dr. T. O. Wills read a paper on "Renal Stones." All of these papers were freely discussed.

Polk County Medical Society met March 10, with five members present.

Dr. John Hunter of Carmona read a paper on "The Diagnosis of Appendicitis." This paper was discussed by all present.

Tarrant County Medical Society met March 2, with about 45 members present.

Dr. L. H. Martin read a paper on the "Etiology and Prevention of Influenza." He stated that in spite of our knowledge concerning the Pfeiffer bacillus and other organisms found in this disease, the true cause has probably never been discovered. He urged the profession to report all cases of influenza to the Health Department in order that the statistics of that department might be of value. It was brought out in the discussions that most cases of acute respiratory infections were diagnosed as influenza, whereas some of these cases were not true influenza.

Dr. Charles McCollum called attention to the fact that there was an abdominal form of influenza as well as the more common respiratory type.

The paper was further discussed by Drs. Holman Taylor and Will S. Horn.

Dr. John Potts read a paper on "After Effects of Influenza, With Special Reference to the Heart," which was discussed by Drs. W. G. Cook and L. M. Whitsitt.

The Bureau of Civic Coördination was invited to meet with the Tarrant County Medical Society at such time as the Program Committee might arrange and that would be agreeable to the Bureau.

Dr. Charles McCollum called the attention of the Society to the fact that those contemplating reading papers at the State Association Meeting at Houston should read their papers at once before their local society.

Dr. L. H. Martin then discussed the problem of food-handlers in Fort Worth at some length, and his remarks were followed by a general discussion by many members of the Society. A motion was passed that it was the consensus of opinion of the Tarrant County Medical Society that the examination of food-handlers should be done by the Health Department of the city.

Dr. Will Horn made a report as Chairman of the Publicity Relationship Committee, and stated that there was need for a great deal of money to carry on this Campaign and that a number of the members had not paid their assessments.

Mr. Jed Morrow of Dallas made a brief address in which he stated that the *Fort Worth Star-Telegram* and *Record-Telegram* and the *Fort Worth Press* had refused to receive ads from illegal practitioners. He displayed several ads prepared for the Advertising Campaign and gave a brief outline of the effect that the Campaign was having upon the general public.

Tarrant County Medical Society met March 16, with about 35 members present.

Dr. Hodges McKnight read a paper on "Carotid Ligation in Epistaxis." He gave an account of a case of uncontrollable nosebleed of traumatic origin, for which, after trying local measures, he had first tied the external and then the common carotid arteries. A review of the literature revealed only 19 somewhat similar cases on record. This paper was discussed by Drs. W. S. Thompson, R. J. White and R. W. Moore.

Dr. F. D. Boyd read a paper on "My Routine Practice in Doing Tonsil Operations." He outlined his method of tonsillectomy, calling attention to a number of practical points in the technic of this

operation. The paper was discussed by Drs. W. R. Thompson, J. B. Shannon and Gabe Terrell.

Dr. I. L. Van Zandt read a paper on "Some Thoughts on Arteriosclerosis and Allied Conditions." The discussion of this paper was opened by Dr. Pearre Hawkins.

Mr. Frank Reedy was present by invitation and addressed the Society upon the proposed trip to Mexico which he is going to conduct, following the A. M. A. Meeting in Dallas.

Van Zandt County Medical Society met at Canton, March 5, with seven members present.

Several of the doctors present reported interesting clinical cases, which reports were followed by a sort of round-table discussion.

Wood County Medical Society elected the following officers for 1926: President, Dr. W. T. Black of Quitman; Vice-President, Dr. T. B. Reed of Mineola; Secretary-Treasurer, Dr. V. E. Robbins of Quitman (re-elected); Delegate, Dr. R. H. Coleman of Mineola; Alternate, Dr. V. E. Robbins; Censors, Drs. T. H. Peterson and J. M. Puckett of Mineola, and Dr. R. T. Dickey of Winnsboro.

CHANGES OF ADDRESS.

Dr. R. L. Graham, from Devine to La Pryor.
Dr. F. T. Blow, from Buna to Silsbee.
Dr. R. D. Harris, from Navasota to Fort Worth.
Dr. J. H. Florence, from San Antonio to Houston.
Dr. J. W. Brown, from El Paso to Terlingua.
Dr. S. Burg, from San Antonio to Dallas.
Dr. A. J. Gilbert, from Hillsboro to Dallas.
Dr. J. C. Young, from Dallas to Cross Plains.
Dr. Charles H. Haggard, from Galveston to San Antonio.
Dr. Roy A. Olive, from Brandon to Malone.
Dr. P. D. Reynolds, from Rosewood to Big Sandy.
Dr. B. F. Holton, from Purdon to Corsicana.
Dr. A. E. Johns, from Plano to Corsicana.
Dr. J. D. Robinson, from Florence to Aubrey.

DEATHS

Dr. John Baxter McLean died at his home in Fort Worth at 11:30 a. m., March 4, 1926. He had been ill for about two weeks with influenza which became complicated by pneumonia.

Dr. McLean was born in Lawrenceburg, Tennessee, December 22, 1853. He received his preliminary education at Savannah, Georgia, after which he attended Vanderbilt University, from which he received the degree of Doctor of Medicine in 1879. Returning to Lawrenceburg, he practiced for six years, moving to Fort Worth in 1885, where he practiced up to a short time of his death.

He affiliated himself with Tarrant County Medical Society and the State Medical Association of Texas at an early date in his practice of medicine, and was a very regular attendant upon all of the meetings of that Society. He was also a member of the American Medical Association. Dr. McLean was a member of the First Presbyterian Church of Fort Worth.

He is survived by his wife; one son, Harvey I. McLean of Oklahoma City; one grandchild, Louise McLean, and two brothers, Charles McLean of Tennessee and Frank McLean of Dallas.

Dr. Stephen M. Applewhite died at San Antonio, Texas, at 2:40 p. m., March 2, 1926, after an illness from pneumonia of about 14 days.

Dr. Applewhite was born in Bossier Parish, Louisiana, September 24, 1852, moving with his parents to San Antonio when he was but one year old. He was educated in the public schools of San Antonio and took his degree in medicine from Tulane University at New Orleans, March 18, 1875. His great grandfather, Dr. John Applewhite, was a surgeon in the Ninth Virginia Regiment during the American Revolution.

After graduating from Tulane he returned to San Antonio, where he practiced up to the time of his last illness, with the exception of three years during which he served as surgeon to a Company of Rurales in Mexico. He very early affiliated himself with the Bexar County Medical Society of which he was one of the first members, and during his long active medical career he was a staunch advocate and supporter of his County and State Medical Associations, and a member of the American Medical Association.

DR. S. M. APPLEWHITE.

He was a Mason and a Praetorian, and his pallbearers were members of Praetorian Lodge Number 6.

He is survived by his widow and by seven children of his former wife: J. E. Applewhite of Laredo, Steve R. Applewhite of Los Angeles, California, Misses Birdie and Nannie Applewhite of California, Mrs. Bessie Shand of Houston, Mrs. Susie Swarz and Mrs. Otto Boerner of San Antonio; one stepson, Maxwell Evans of San Antonio; eleven grandchildren, and one great grandchild.

In Dr. Applewhite's passing San Antonio has lost one of its most valued citizens and the community and the medical profession one of its tried and true pioneer practitioners of medicine, who did so much to place the practice of medicine upon the high plane which it occupies.

Dr. Joel Albert Gibson died in the Mary Gates Hospital at Port Arthur, Texas, January 2, 1926, from a cerebral hemorrhage following an automobile accident.

Dr. Gibson was born in Clay County, Alabama, January 4, 1869. He was educated in the common schools of Alabama and graduated in medicine from the Atlanta College of Medicine in 1890. From 1891

to 1892 he studied at the New York Polyclinic, and in 1893 located in Hardin County, Texas, where he was surgeon for several large lumber interests. He moved to Beaumont in 1902, where he practiced for 6 years, after which, on account of his wife's health, he moved to Llano, where he practiced until 1918. He then located at Port Arthur where he continued to practice up to the time of his death.

He was for a number of years County Health Officer of Jefferson County. He very early affiliated himself with his County Medical Society and was an energetic worker in Jefferson County Medical Society and the State Medical Association of Texas. He was an Ex-President of Jefferson County Medical Society, a member of several important committees of the State Medical Association, and a Fellow of the American Medical Association. He was a Mason and a member of the Baptist Church at Port Arthur. He was also a member of the Board of Directors of the Jefferson County Tuberculosis Sanatorium. He

DR. J. A. GIBSON.

was greatly beloved by all who knew him and his loss is mourned by a host of friends, both among the laity and the medical profession.

Dr. Gibson was married, June 6, 1898, to Miss Kathryn M. Ellison of Franklin, Texas. He is survived by his widow and two sons, Joe A. Gibson of Port Arthur, and John Gibson of San Antonio.

Dr. Roy McLeod Munroe died of pneumonia at the Scott and White Hospital of Temple, Texas, at 12:30 a. m., February 23, 1926, after a week's illness.

Dr. Munroe was born at Camden, Arkansas, October 18, 1889, and was the son of Dr. E. M. Munroe, who was for many years pastor of the Presbyterian Church at Milford, Texas.

He received his preliminary education in the public schools of Milford, Texas, graduating from the High School in 1906. He then graduated from the San Antonio Academy in 1907, following which he attended Austin College at Sherman from 1907 to 1909. He then entered the Medical Department of the University of Texas at Galveston, from which he graduated in 1913.

Following his graduation he was Interne at St. Joseph's Infirmary at Houston for one year. He then entered into a partnership with Dr. J. M. O'Farrell of Richmond where he practiced until February, 1920, with the exception of the time that he was a First Lieutenant in the Medical Corps of the Army

DR. R. M. MUNROE.

at Camp Logan during the World War. In February, 1920, he went to Milford, where he engaged in general practice and was College Physician for the Texas Presbyterian College for Girls. In July 1925, he moved to Temple, where he became associated with Dr. R. T. Wilson in the Radiological Department of the Scott and White Clinic.

Dr. Munroe affiliated himself with the Fort Bend County Medical Society, transferring later to the Ellis County Medical Society. He was an active member of the State Medical Association and a Fellow of the American Medical Association. He was a member of Milford Lodge, Number 262, A. F. & A. M., and a deacon in the Presbyterian Church at Milford. He was a member of the Alpha Theta Chapter, Alpha Kappa Kappa Medical Fraternity at Galveston.

He was married, November 28, 1916, to Miss Marguerite Davis of Milford, and to this union were born three children, Mary Emma, Helen Sue and Roy, Jr. He is survived by his widow and three children; by two brothers, Will Ed of California, Rev. Marshall Munroe, Pastor of the Presbyterian Church at Taylor, Texas, and by three sisters, Mrs. T. L. Green of Lancaster, Miss Margaret Munroe of Milford and Miss Jeanette Munroe of Little Rock, Arkansas.

It was said of him by one who was close to him:

"The influence of his life and work can never be measured or known, as he was never too busy nor too tired to respond to the calls that came to him day or night. He considered others always and himself little. We speak for the heart of the people of Milford when we say that we are mindful of his outstanding character, wonderful mind, clear and strict conscience, always sure of the right and from which line of action no power could ever make him change. Coupled with all this was his high sense of duty and his gentle and sympathetic nature, which so marked itself on all occasions. He radiated light, life, happiness, and joy wherever he went."

He was buried at Milford, the Milford Masonic Lodge officiating at the grave.

Dr. Charles Newton Powell died at his home at Deweyville, Texas, February 18, 1926.

Dr. Powell was born March 15, 1869, in Jasper County, Texas, and was the son of the late Reverend B. Z. Powell of Farrsville. He attended the public schools at Farrsville and later at Newton. He began the study of medicine in the Fall of 1891, when he entered the Kentucky School of Medicine at Louisville, Kentucky. He later entered the College of

DR. CHARLES N. POWELL.

Physicians and Surgeons at St. Louis, from which institution he graduated in May, 1893.

After graduation he began the practice of medicine at Newton, but in the fall of that same year he accepted the position of physician for the Sabine Tram Company at Laurel, Newton County, Texas, where he practiced for eight years. After this he moved to Deweyville, where he continued as physician for the same company for eighteen years, and after this was physician for the Peavy-Moore Lumber Company at the same place, for seven years.

Dr. Powell had been for a number of years a member of the Jasper-Newton County Medical Society and of the State Medical and American Medical Associations. He was a Maccabee, a member of the Woodmen of the World, and a Thirty-second Degree Mason; he had taken both the York and Scottish Rites. He was a member of the Methodist Church.

Dr. Powell was married September 13, 1893, to Miss Annie Trotti. He is survived by his widow and three children, Dr. Leslie C. Powell, of Beaumont, and Misses Hazel and Kathleen, both of whom are teaching in the Deweyville schools; and by one granddaughter, Muriel Gene.

He was buried at Beaumont under the auspices of his Masonic Lodge.

Dr. Samuel O. Young died at St. Joseph's Infirmary, Houston, at 4:15 p. m., February 16, 1926.

Dr. Young was born at Houston, January 1, 1848, and at the time of his death was said to be Houston's oldest native-born citizen. At the age of 16 years he joined Hood's Fifth Texas Brigade with which he served during the war. He was an enthusiastic member of the Veteran Light Guard Association and has written a history of this Association. After the War he entered Washington and Lee University at Lexington, Virginia, from which he graduated and then attended the New Orleans Medical College from which he received the degree of doctor of medicine. He began the practice of medicine at Houston and was said to be one of the charter members of the State Medical Association of Texas. At any rate, he attended the Annual Session of the State Medical Association which met at Houston in June, 1872, and was elected Corresponding Secretary of the Association at that meeting. He was, at the time of his death, the only survivor of those who attended that meeting. The Transactions of 1872 contain the following record: "The roll being called, the following gentlemen responded to their names: Drs. D. R. Wallace, A. Connell, Wm. H. Howard, J. Larendon, W. C. McGown, R. F. Flewellen, J. A. McQueen, S. O. Young, O. H. Seeds, J. M. Ross and D. F. Stuart."

Following the death of his mother, Dr. Young joined with other prominent Houstonians in founding the *Houston Post*. He later served as Managing Editor of the *Galveston News*, and still later, as Secretary of the Galveston Cotton Exchange. Returning to Houston he contributed to the *Houston Chronicle*, being editor of the "Twenty Years Ago in Houston" column. He was the author of a number of historical writings, among which are: "The Thumb Nail History of Houston" and "A History of the Veteran Light Guard Association."

He is survived by two daughters, Mrs. D. Y. Brown and Mrs. O'Brien Stevens of Houston; one son, Gale S. Young of St. Louis, and three grandchildren.

BOOK NOTES

Intestinal Tuberculosis, Its Importance, Diagnosis and Treatment. A Study of the Secondary Ulcerative Type. By Lawrason Brown, M. D., Chairman of the Medical Board of the Trudeau Sanatorium, Saranac Lake, New York, and Homer L. Sampson, roentgenographer of the Trudeau Sanatorium. 8 vo., cloth, 304 pages, 112 engravings. Price $4.00. Lea and Febiger, Philadelphia and New York, 1926.

The medical profession have become accustomed to receiving the results of scientific investigations from Saranac Lake. To Dr. E. L. Trudeau we are indebted for much of the present knowledge concerning pulmonary tuberculosis. Although intestinal tuberculosis has been noted for many years by pathologists, the condition is frequently overlooked clin-

ically, and if noted at all, there is usually a failure to distinguish between primary intestinal tuberculosis and such a condition complicating an active pulmonary tuberculosis. The importance of the recognition of this condition and of its proper and thorough treatment is stressed in this splendid monograph by Drs. Brown and Sampson.

The first nineteen chapters are devoted to the history of intestinal tuberculosis; the anatomy of the intestines; the etiology, pathology and symptomatology of intestinal tuberculosis. The next four chapters are devoted to the diagnosis of the condition and the method of diagnosing and dividing into clinical, laboratory, and Roentgen-ray methods. Numerous excellent illustrations and charts made from carefully taken roentgenograms are clearly explained in the accompanying text. The next two chapters discuss the complications of intestinal tuberculosis and the prognosis in the disease. Following this is a brief chapter on "Prophylaxis of Intestinal Tuberculosis." The chapter on treatment which follows is divided into General Measures, Heliotherapy, Roentgen-ray Treatment, The Intraperitoneal Injection of Oxygen, Surgical Treatment and Medicinal Treatment. The book concludes with a summary and a tremendous bibliography, alphabetically arranged. It is, indeed, a classic on a little understood, but very important disorder.

An Intermediate Textbook of Physiological Chemistry With Experiments. By C. J. V. Pettibone, Ph. D., Associate Professor of Physiological Chemistry, Medical School, University of Minnesota, Minneapolis. Third Edition. 12 mo., cloth, 404 pages. Price $3.25. C. V. Mosby Company, St. Louis, 1925.

The new edition of this practical manual on physiological chemistry has been thoroughly revised and brought up to date. In the light of new knowledge concerning many of the products of the glands of internal secretion, the additional information concerning the chemistry of these secretions has been included in the text, especially the product of the pancreas, insulin. The principal laboratory tests for the more common organic compounds met with in the study of physiological chemistry are outlined. The volume is divided into two parts, the first part consisting of the theoretical or didactic, and the second part being given to laboratory work. An appendix is added, under which are given directions for making qualitative or experimental reagents. The book closes with an extensive bibliography which is classified under a number of general headings.

Experimental Investigations Into the Emotional Life of the Child Compared with that of the Adult. By Helga Eng., Oslo, translated by George H. Morrison, M. B. (Edin.) 8 vo., cloth, 243 pages, illustrated. Price $6.50. Oxford University Press, American Branch, New York City, 1925.

In the introductory chapters the problem with which this book deals is stated as follows: "The problem calling for solution had thus two separate aspects: first, to find out whether physical experiences of a definite character were accompanied by definite changes in the volumepulse curve and in the respiratory curve, and second, to ascertain whether the vasomotor and respiratory changes which were found in adults were also exhibited in children; or whether the changes of the volumepulse curve and of the respiratory curve in children possessed some specific quality which might indicate a corresponding feature peculiar to the child's emotional life." A description is given of the apparatus used in carrying out the experiments, and a brief history of the work along similar lines done by many experimenters. Following the description of these experiments is a chapter entitled, "Theoretical Conclusions From the Results of the Experiments With Regard to Various Emotion Theories." One hundred and ten pages of tables are given, summarizing the results of the five hundred and fifteen experiments. In the back of the book are nine plates of tracings, with accompanying explanatory notes.

Midwifery Mechanics. By Lieut.-Colonel Andrew Buchanan, I. M. S. (Retd.), M. A., M. D., M. Ch., M. A. O., Ex-Superintendent of Nagpur Medical School and of Dufferin Hospital, Nagpur, India. 12 mo., cloth, 82 pages, 12 illustrations. Price $2.50. The Oxford University Press, American Branch, New York City, 1924.

This manual on obstetrics is an intensely practical book written from a rich experience. The author complains of the fact that too many physicians fail to qualify themselves to properly practice obstetrics. Some individuals are so constituted that they cannot drive a tenpenny nail into a pine board without bending it; such individuals should not practice obstetrics. If surgery demands that the surgeon be a good mechanic, then indeed, obstetrics demands that he be an *expert* mechanic. There can be no question that thousands of babies and hundreds of mothers lose their lives annually, due to the lack of mechanical ability on the part of the obstetrician. The main features stressed by the author are his "pivotal points." He compares the passage of the fetal head through the pelvis of the mother to the rotation of a bicycle wheel within the mudguard, comparing the middle point on the mento-occipital diameter, as the center "C," to the axle of the bicycle wheel. He does not like the terms "flection" and "extension," in common use in explaining the mechanism of childbirth, using instead the term "revolution." He also substitutes this word for "rotation." The author has presented some very ingenious models to illustrate the mechanism of the passage of the fetal head through the maternal pelvis and the method best adapted for delivery in various presentations. He stresses the importance of the knowledge of the position and presentation before the mother is in labor. The author lays down two dicta which expressed briefly are that with the back of the child to the front there will be a good vertex and a bad face presentation, and with the abdomen front, a good face but a bad vertex presentation. He reduces the more important points regarding the mechanism of delivery of the forecoming head to what he calls his "twelve letter formula," which is, indeed, ingenious and a considerable aid to the memory. It is a pity that the nomenclature used by the British differs so materially from that in common use in American literature. This difference in nomenclature renders the discussions of obstetrical subjects by British authors rather difficult reading for the average American physician.

Venereal and Sexual Diseases. Prevention, Recognition and Cure. A Non-technical Discussion for Popular Use. By Nicholas Andronis, A. B., M. D., Instructor in Surgery, Medical Department of the University of Texas, Galveston. Acting Assistant Surgeon, United States Public Health Service, Galveston. 12 mo., paper, 154 pages. Price $1.50. Published by N. Andronis, Galveston, Texas.

This booklet on venereal and sexual diseases is written, as the title would indicate, not for the physician, but for the laity. The book is not an attempt to teach the public self-medication in such infections. In fact, throughout the book, self-medica-

tion is emphatically condemned and the patient repeatedly advised to consult his family physician. The fallacy of the patient trying to diagnose his own case is clearly illustrated by a number of concrete examples taken from the author's own experience. The book is couched in language that the person of average education can easily understand. Technical terms are avoided or explained in more simple terms. The book consists of an Introduction, under which the three principal divisions into which venereal diseases fall and the difference between these diseases is discussed briefly. The body of the book is divided into three sections. Section I is a frank discussion of Gonorrhea; Section II of Chancroid or Soft Chancre, and Section III of Syphilis. The book closes with a Glossary of words, the exact meaning of which might possibly not be understood by some. Especially valuable under the section on syphilis is the information concerning the proper amount of treatment necessary for the cure of that disease. Many of the general public, and, in fact, of the profession, are still of the erroneous opinion that one or two intravenous injections of salvarsan will rid the body of spirochetes. The author well points out that since venereal diseases are in the great majority of cases contracted extramaritally, the subject is usually tabooed and avoided. Not only does the unfortunate individual thus diseased fail to secure adequate treatment by concealing his affliction, but he thus becomes a menace to society. The whole subject of the prevention and control of venereal diseases is a very vital one, which is in no sense generally appreciated by the public.

Facts on The Heart. By Richard C. Cabot, M. D., Professor of Medicine and of Social Ethics at Harvard University. 8 vo., cloth, 781 pages, 16 illustrations. Price $7.50 net. W. B. Saunders Company, Philadelphia and London, 1926.

This exhaustive work by such a well recognized author as Dr. Richard Cabot is truly monumental. The author states that the book is based upon a review of 4131 lesions in 1906 cardiac cases, all of which came to autopsy. The author graciously acknowledges his indebtedness to Drs. James H. Wright and Oscar Richardson who performed the necropsies. He modestly states that his task was "merely to collect, arrange and at times to interpret the results of these pathologists' labors so far as they relate to cardio-vascular disease"—a not inconsiderable task, certainly! Some of the printed discussions of cases were written by Drs. Paul D. White, Hugh Cabot, Edward L. Young, Jr., William H. Smith, William D. Smith and Maurice Fremont-Smith. The author concludes the preface to his book with a rather unusual admonition as follows: "Very few people should even try to read the whole of this book. I should advise most readers to read the opening and the closing chapters, and the summaries at the end of each section, and then to look over as many of the illustrative cases as seem interesting." The joker to this advice lies in the fact that if one follows the author's advice, and is a real student of medicine at heart, the intervening chapters will most certainly not escape attention. The author will undoubtedly bring down upon himself the wrath of those who still worship at the shrine of "murmurs." Many of his conclusions are indeed startling, but on the other hand they are almost inescapable. Instead of discussing heart lesions under the usual classifications, which were based very largely upon murmurs, the author classifies cardiac diseases under three heads: the rheumatic heart, the syphilitic heart, and hypertensive heart disease. To one steeped in Oslerism the statement that out of the 1906 necropsies on cardiac cases only seven showed mitral regurgitation without stenosis, is indeed startling. The author follows up his right with a stiff left then he states that mitral regurgitation is "one of the rarest lesions discoverable post-mortem. During life there are no signs by which it can be recognized. It is not a clinical entity." Another surprise comes when he states that in heart disease with decompensation, the hypertensive "is commoner than all other types put together." This book is unquestionably a most valuable and timely contribution to the literature of cardiac disease.

Abdominal Operations. By Sir Berkeley Moynihan, K. C. M. G., C. B., Leeds, England. Fourth Edition, Revised and enlarged. Two 8 vo. volumes, totaling 1217 pages, with 470 illustrations, 10 in colors. Price $20.00 net. W. B. Saunders Company, Philadelphia and London, 1926.

This remarkable classic on Abdominal Operations appears in the Fourth Edition exactly twenty years after the publication of the first edition of the work. The author states in his preface that no gynecological operations are described but only such abdominal operations as are common to both sexes. The surgery of the kidney and bladder and operations for hernia are also omitted. The work concerns itself only with operations in general use, almost all of which are practiced by Sir Berkeley himself. The two volumes are divided into five sections as follows: Section I—General Considerations; Section II—Operations Upon the Stomach; Section III—Operations Upon the Intestines; Section IV—Operations Upon the Liver; Section V—Operations Upon the Pancreas and Spleen. The book is printed on calendered paper throughout and the many carefully planned and well executed cuts add materially to the value of the interesting and authoritative text.

Operative Cystoscopy. By E. Canny Ryall, F. R. C. S., Founder of and Senior Surgeon to All Saints' Hospital for Genito-Urinary Diseases, London. Royal 8 vo., cloth, 508 pages, 115 plates containing 670 original illustrations, of which 528 are colored. Price $25.00. C. V. Mosby Company, St. Louis, U. S. A., 1925.

This beautiful volume is a striking example of the engraver's art. It is printed on heavy and highly calendered paper throughout. The type is large and bold, which renders it very pleasing and restful to the eye. There are 48 pages of text and 460 pages of illustrations and legends. The text is divided into four sections as follows: I. Anesthesia, II. Ureter, III. Bladder, and IV. Prostate. Under the first section the technic used by the author in anesthetizing the genito-urinary tract is briefly but lucidly described. Dr. Ryall insists upon dilute solutions of cocaine for anesthetizing the urethra and neck of the bladder. He believes that the untoward results reported by others from the use of cocaine for this purpose, have been due to employing solutions of too high a concentration. In many thousands of cases the author has seen no harmful results from the use of dilute solutions of cocaine in the urethra. The next three sections describe the technic for treating pathology of the ureter, bladder and prostate and also include many very unusual cases used, many of which have been devised or modified by the author, are both illustrated and described. Diathermy has been successfully applied in many cases and the results of such treatment are well illustrated by many of the plates to which reference is made in the text. The larger portion of the book is composed of 115 plates which contain 670

accurate illustrations, 528 of which are reproduced in natural colors. It would be difficult to imagine better illustrations. The conditions shown by these illustrations cover practically all of the pathological conditions usually found in the ureter, bladder and prostate and also include many very unusual cases selected from the author's remarkable number of cystoscopic cases. It is believed that the method adopted in this book is ideal for teaching operative cystoscopy. The legends are printed in English, French and German. Many of the illustrations are drawn to scale, thus giving the reader a more accurate idea of size as well as appearance. For those doing cystoscopic work this volume should indeed be a veritable gold mine.

Empyema Thoracis. By Evarts A. Graham, A. B., M. D., Member of Empyema Commission, U. S. Army; Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief Barnes Hospital and Saint Louis Children's Hospital. 8vo., cloth, 110 pages, illustrated. Awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery in 1920. Price $2.50. The C. V. Mosby Company, St. Louis, U. S. A.

This interesting little volume is the crystallization of a peculiarly rich experience in the surgical treatment of empyema. Many of the cases upon which this work was based were seen by Dr. Graham in the army camps where empyema so commonly followed influenza. He especially stresses the fact that free opening of the empyema cavity during an active pneumonia is prejudicial to recovery as proved both by statistics upon the different types of operations in the army camps and also by experimental work on dogs. The washing out of the empyema cavity with Dakin's solution aids in the decortication of the cavity. As soon as pneumonic symptoms subside, adequate drainage of the cavity should be thoroughly established. The volume closes with an extensive bibliography.

Treatment of Kidney Diseases and High Blood Pressure. By Frederick M. Allen, M. D. A. Practical Manual for Physicians and Patients. 12mo., cloth, 210 pages. The Physiatric Institute, Morristown, New Jersey.

This little volume is designated as Part I by the author, Part II not having been published at the time the book was presented for review. The author calls attention to the fact that although the span of life has been greatly increased, largely by the work done on communicable diseases by the bacteriologists and public health workers, the processes commonly known as the degenerative diseases are on the increase. That this is true is clearly shown by great masses of statistics, especially those compiled by life insurance companies. In this little volume the dangers of improper diet and habits are forcibly brought out. In the treatment of cardiorenal disease great emphasis is placed upon the salt-free diet, or rather a salt restricted diet, together with a reduction in the amount of proteins taken. The old formula concerning red meat and white meat has been found a good target by the author. The first nine chapters are devoted to the etiology, diagnosis and treatment, both prophylactic and curative, of renal-vascular disease. The last three chapters contain accurate descriptions of the laboratory tests found valuable by the author in kidney disease, while the four remaining chapters contain a dissertation on principles of diet, with recipes, menus and food tables. In the endeavor to present a manual on "renal-vascular disease in simple form for practicing physicians," the author has, as usual, succeeded admirably. His reputation in the treatment of renal diseases is such that anything that he may say on this subject will be well received.

Symptoms of Visceral Diseases. A study of the Vegetative Nervous System in Its Relationship to Clinical Medicine. By Francis Marion Pottenger, A. M., M. D., LL. D., F. A. C. P., Medical Director, Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California. Author of Clinical Tuberculosis, etc. Third Edition, Revised; 8vo. Cloth, 394 Pages, 86 Illustrations and 10 Color Plates. Price, $6.50. C. V. Mosby Company, St. Louis, 1925.

The fact that the first two editions of this work were so rapidly exhausted gives evidence of its popularity and worth. The book is divided into three parts, entitled, The Vegetative Nervous System, The Relationship Between the Vegetative Nervous System and the Symptoms of Visceral Disease, and Innervation of Important Viscera with a Clinical Study of the More Important Viscerogenic Reflexes, respectively. In his introductory chapter, the author emphasizes the necessity of a broader conception of medicine than is ordinarily taught in medical schools. He shows clearly how impossible it is for a physician to be a specialist in any branch of medicine without a thorough understanding of the inter-relationship of the portions of the body he is attempting to treat, and all other parts of the body. The embryology, anatomy, and physiology of the vegetative nervous system are next discussed in detail, while the concluding chapter in Part I deals with The Relations of the Ionic Content and Physical State of the Cell to Activity and Nerve Stimulation. Part II is a discussion of the classification of the origin of symptoms of visceral disease. The general character of reflexes is explained as is the relation between the sympathetic and parasympathetic nervous systems. In Part III, which comprises about one-half the volume, the various viscerogenic reflexes are described in connection with individual organs and structures. The work is a masterly presentation of a very difficult and little understood subject, and should be very helpful to the diagnostician in affording an explanation of many symptoms difficult of comprehension. The illustrations, which are for the most part diagrammatic, add materially to the value of the book.

Bacteria in Relation to Man. A Study-Text in General Microbiology. By Jean Broadhurst, Ph. D., Associate Professor of Biology, Teachers College, Columbia University. 12mo., Cloth, 306 Pages, 13 Chapters, 147 Illustrations. Price, $3.00 net. J. B. Lippincott Company, Philadelphia and London.

This interesting volume is one of Lippincott's nursing manuals, and is intended to be Part One of a series of two books on bacteriology and immunity, the second volume being entitled, "How We Resist Disease," which was reviewed in the January, 1925 issue of the JOURNAL. The text is an excellent one for nurses and for premedical students and the general student interested in biology. The many illustrations are both well planned and well executed. The volume begins with a description of the compound microscope and its care and use. Following this introductory chapter are chapters on Green and Independent Plants, The Cell Molds, Bacteria, and Protozoa. Next follow chapters on the bacteriology of air, water, milk and soils. The two closing chapters, twelve and thirteen, are in outline form and are intended as introductory chapters to Volume Two, "How We Resist Disease."

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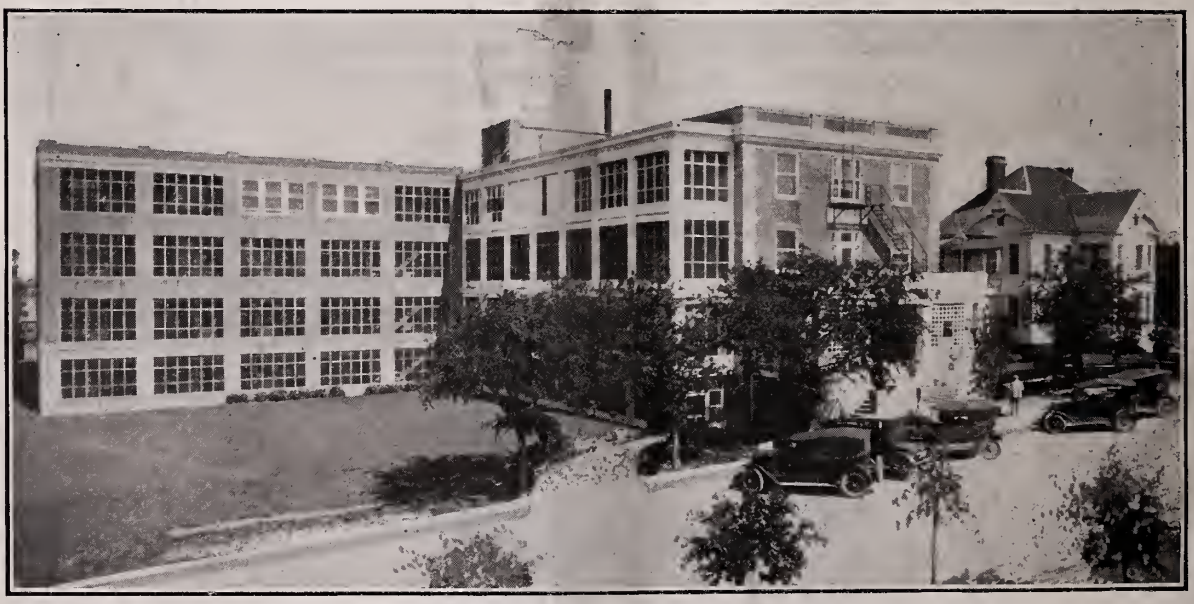

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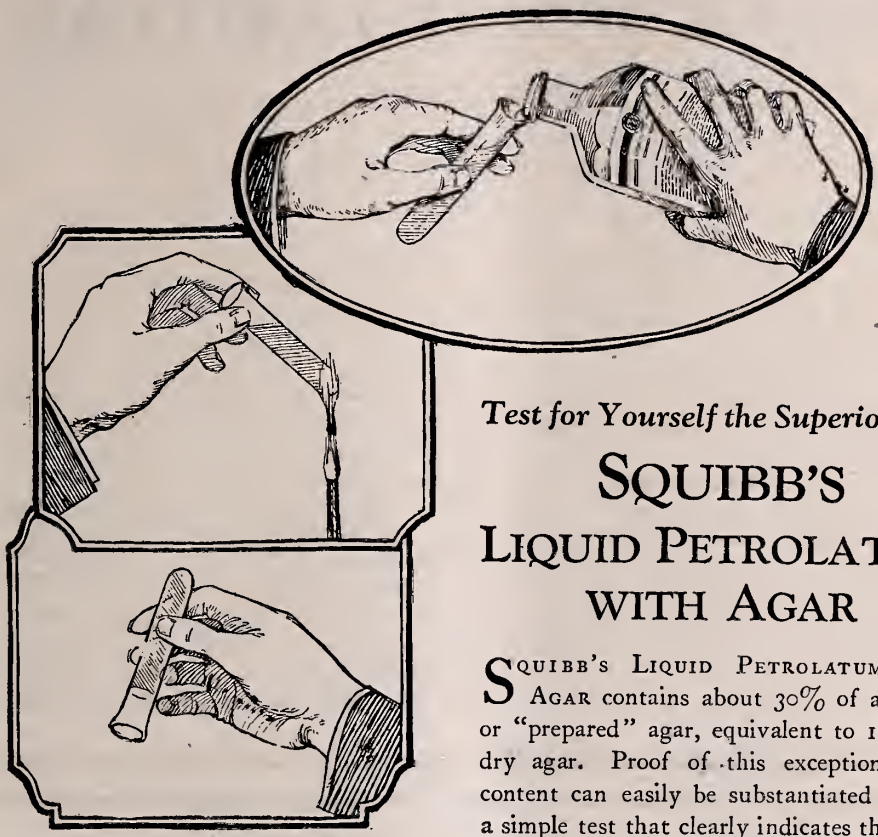

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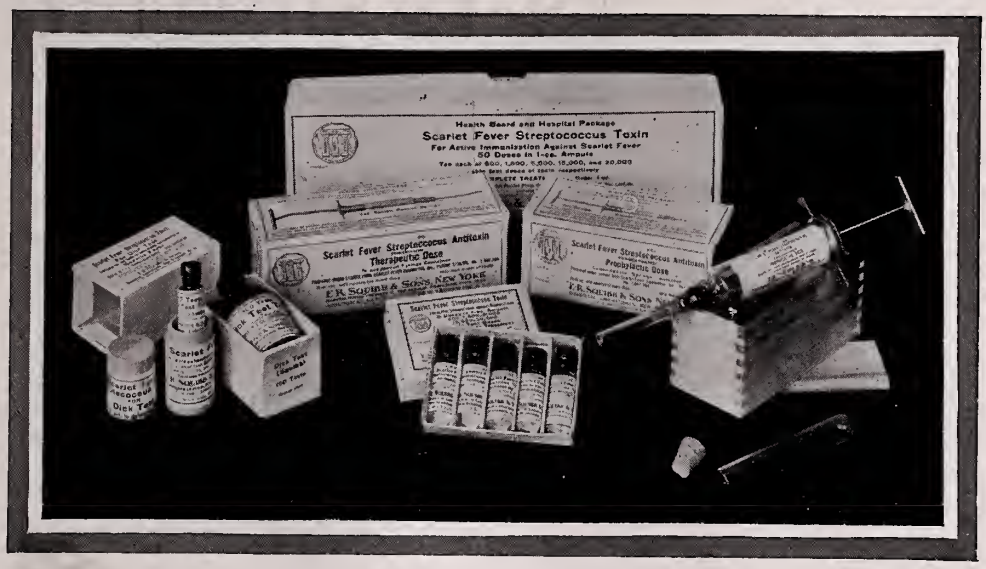

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